CITY OF ABERDEEN

REPORT

BY THE

MEDICAL OFFICER OF HEALTH

FOR THE YEAR

1928

BUREAU OF HYGIENE & TROPICAL DISEASES
24 MAY 1929

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PREFACE.

The results of the various experimental investigations of the Health Department during 1927-1928 were incorporated in the Annual Report for 1927, the publication of which was for various reasons delayed until October, 1928. Accordingly the Annual Report for 1928, as herewith submitted, consists mainly of a statistical survey of the Health of the City during the year.

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City of Aberdeen.

REPORT BY THE MEDICAL OFFICER OF HEALTH

For the Year 1928.

CHAPTER I.

INFECTIOUS DISEASES.

Table I. gives the death-rate from each of the principal infectious diseases since the commencement of registration. In Table II. the number of cases and deaths for each disease is stated for the successive months of the year. Table III. gives the cases of infectious diseases notified in different sized houses; and Table IV. gives the morbidity and mortality of infectious diseases distributed according to ages and where treated. In Table V. the cases and deaths, together with the case-mortality or percentage of deaths to sicknesses in certain diseases, are supplied for each of the years 1918 to 1928, as also the averages for the 1908-1917 and 1918-1927 decades.

DISEASES WITH A SPECIFIC PROPHYLAXIS.

Small-pox.

There have been no cases of small-pox during 1928.

Vaccinia.

Table VI., on page 7, shows the percentage of the total surviving children at the end of the calendar year following the year of birth who have remained unvaccinated in each year from 1907 to 1927. In 1927, as also in 1926, the proportion of children thus escaping vaccination was 8·0 per cent., as against 8·2 in 1925 and 7·7 in 1924.

Plague.

No cases during 1928.

Scarlet Fever.

This disease has been highly prevalent since October, 1925. In 1928, 728 cases were notified, as compared with 702 cases in 1927. The case-mortality in 1928 was 0·7, as against 0·4 in 1927, which is the lowest yet recorded. During the 1918-1927 decennium, the average yearly number of cases was 471 and the case-mortality, 1·3.

TABLE I.—ABERDEEN.—DEATHS AT ALL AGES FROM SELECTED CAUSES (per 100,000 of population).—*Years* 1856-1928.*

Year.	Small-pox	Scarlet Fever.	Diphtheria and Croup.	Measles.	Whooping Cough.	Influenza.	Typhus Fever.	Typhoid and Paratyphoid Fever.	Tuberculous Diseases.		Dis. of Digest. Sys. (incl. Diarrhœa).	Cancer and other Malignant Diseases.	Bronchitis.	Pneumonia.	Dis. of the Circl. System, † excluding Cerebral Embolism & Thrombosis.
									Respiratory.	Other Tuberculous.					
1928, . . .	0	3	9	31	23	13	0	1	71	34	80	155	58	91	251
1927, . . .	0	2	9	1	9	26	0	0	66	35	74	145	74	101	228
1926, . . .	0	4	13	13	9	21	0	0	75	40	93	133	55	80	209
1925, . . .	0	9	14	17	34	11	0	0	97	27	83	149	59	76	193
1924, . . .	0	2	7	35	45	34	0	1	91	44	63	145	85	90	215
1923, . . .	0	2	5	26	3	7	0	2	80	43	87	132	68	76	196
Average 1923-1927,	0	4	10	18	20	20	0	1	82	38	80	141	68	85	208
1922, . . .	0	6	9	88	63	64	0	0	89	26	78	153	99	129	191
1921, . . .	0	5	23	1	1	18	0	0	89	17	94	129	96	98	193
1920, . . .	0	2	17	26	17	34	0	1	98	32	92	130	104	129	169
1919, . . .	0	2	20	1	20	126	0	3	88	43	66	124	100	120	170
1918, . . .	0	2	13	27	33	168	0	9	111	51	81	111	100	157	177
Average 1918-1922,	0	3	16	29	27	82	0	3	95	34	82	129	100	127	180
,, 1916-1920,	0	6	16	22	23	73	0	3	106	43	87	121	99	122	178
,, 1911-1915,	0·2	38	42	56	32	16	0	4	111	49	124	116	101	128	184
,, 1906-1910,	0	6	15	26	42	20	0	2	116	61	115	103	105	116	180
,, 1901-1905,	0·1	8	9	41	47	20	2·6	3·6	138	69	162	87	145	125	179
,, 1896-1900,	0	23	18	35	53	29	0·2	9	167	70	210	87	172	109	167
,, 1891-1895,	0·4	21	22	63	52	56	1·0	10	181	72	190	81	210	100	156
,, 1886-1890,	0·8	14	10	80	66	9	1·4	15	184	67	202	68	216	100	175
,, 1881-1885,	0·2	13	15	36	67	1	6	13	204	74	185	69	251	82	159
,, 1876-1880,	0·6	35	30	28	66	2	19	29	223	101	194	61	286	72	146
,, 1871-1875,	48	68	30	53	68	5	20	35	243	107	214	56	281	60	136
,, 1866-1870,	3·6	71	5	50	62	8	62	49	298	130	259	59	238	70	122
,, 1861-1865,	36	93	49	51	62	12	176		274	128	280	57	220	59	122
,, 1856-1860,	40	118	54	70	69	12	109		322	179	203	56	182	58	111

* Corrected for transferred deaths in 1904 and subsequent years. † From 1911 onwards.

TABLE II.—PROGRESS OF INFECTIOUS AND CERTAIN OTHER DISEASES IN YEAR 1928.

(Not corrected for transferred deaths.)

DISEASE.		1928.												Whole Year.
		Jan.	Feb.	March.	April.	May.	June.	July.	Aug.	Sept.	Oct.	Nov.	Dec.	
A. Compulsorily Notifiable.														
Small-pox	Cases	...	...	...	...	...	...	...	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...
†Chicken Pox	Cases	63	55	64	36	33	29	18	8	12	21	21	37	397
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet Fever	Cases	116	104	76	45	38	44	22	42	31	48	67	95	728
	Deaths	*2*	*1*	...	...	*1*	...	...	...	...	...	...	*1*	*5*
Diphtheria	Cases	51	36	34	26	36	22	32	21	33	39	72	56	458
	Deaths	*4*	*2*	...	*2*	*1*	...	*1*	*1*	...	...	*3*	*1*	*15*
Typhus Fever	Cases	...	...	...	...	...	...	...	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...
Enterica Infections	Cases	1	4	4	2	...	...	1	...	3	...	...	1	16
	Deaths	...	...	...	...	...	...	...	...	*1*	...	...	...	*1*
Dysentery	Cases	...	7	...	1	...	7	3	12	11	23	14	19	97
	Deaths	...	...	...	...	...	...	...	...	...	...	*1*	...	*1*
Acute Poliomyelitis	Cases	...	...	...	...	...	...	...	...	2	...	...	...	2
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...
Epidemic Cerebro-Spinal Meningitis	Cases	1	...	...	...	2	...	...	...	...	1	...	...	4
	Deaths	*1*	...	...	...	*1*	...	...	...	...	*1*	...	...	*3*
Epidemic Encephalitis	Cases	...	...	...	...	...	...	...	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...
Acute Pneumonia	Primary—Cases	58	54	69	63	40	36	24	18	26	31	26	40	485
	Influenzal—Cases	15	7	1	2	2	2	1	...	1	1	1	1	34
Tubercle—Respiratory	Cases	19	15	10	13	21	14	8	13	7	12	8	10	150
	Deaths	*11*	*11*	*14*	*19*	*14*	*11*	*8*	*13*	*10*	*9*	*10*	*10*	*140*
Tubercle—Other	Cases	9	10	5	5	31	13	12	8	4	13	10	9	129
	Deaths	*9*	*4*	*3*	*5*	*5*	*3*	*8*	*6*	*5*	*6*	*3*	*5*	*62*
Erysipelas	Cases	11	16	10	8	11	7	9	5	11	7	10	14	119
	Deaths	...	*2*	...	...	*1*	*1*	...	*1*	*1*	...	...	...	*6*
Puerperal Fever	Cases	14	5	4	4	2	1	2	3	4	4	3	2	48
	Deaths	*4*	*3*	*2*	*1*	...	...	...	...	...	...	...	...	*10*
Ophthal. Neonatorum—Cases		1	4	3	7	7	3	2	10	4	2	4	4	51
Malaria	Cases	...	1	...	2	...	1	...	...	...	1	...	2	7
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...
Infective Jaundice		...	...	...	...	...	...	...	...	...	...	...	...	...
Plague,		...	...	...	...	...	...	...	...	...	...	...	...	...
B. Not Compulsorily Notifiable.														
Puer. Pyrexia (Non-Septic) Cases		12	...	3	3	1	1	1	...	1	...	2	1	25
‡Measles	Cases	10	87	277	709	543	147	15	5	5	2	8	4	1812
	Deaths	...	*1*	*5*	*11*	*14*	*14*	*3*	*1*	*1*	...	...	...	*50*
German Measles	Cases	1	14	12	11	11	7	...	...	1	5	3	...	65
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...	...
‡Whooping Cough	Cases	65	81	123	113	61	17	9	41	20	15	23	11	579
	Deaths	*2*	*4*	*4*	*9*	*8*	*2*	*3*	*2*	*1*	...	*1*	*1*	*37*
TOTAL	Cases	447	500	695	1050	839	351	159	186	176	225	272	306	5206
	Deaths	*33*	*28*	*28*	*47*	*45*	*31*	*23*	*24*	*19*	*16*	*18*	*18*	*330*
Influenza	*Deaths*	*1*	*2*	*2*	*1*	*0*	*0*	*0*	*0*	*0*	*1*	*1*	*0*	*8*
Do. and Pneumonia,	*do.*	*3*	*2*	*1*	*0*	*1*	*1*	*0*	*0*	*0*	*1*	*0*	*1*	*10*
Do. and Bronchitis,	*do.*	*0*	*0*	*1*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*1*	*2*
Pneumonia	*Deaths*	*19*	*14*	*18*	*19*	*11*	*10*	*12*	*11*	*11*	*14*	*9*	*14*	*162*
Bronchitis	*do.*	*17*	*11*	*12*	*7*	*6*	*11*	*2*	*5*	*0*	*5*	*4*	*8*	*88*

† Compulsorily notifiable from 25th March, 1927.

‡ Compulsorily notifiable from 1881 to 1903; now reported mainly by School Attendance Officers.

TABLE III.—ABERDEEN.—CASES OF INFECTIOUS DISEASES NOTIFIED IN DIFFERENT SIZED HOUSES IN YEAR 1928.

DISEASE.	Number of Cases in Houses of					Institutional or not stated	Case Rate per 1,000 Houses of				
	1 Room	2 Rooms	3 Rooms	4 Rooms	5 Rooms and upwards		1 Room	2 Rooms	3 Rooms	4 Rooms	5 Rooms and upwards
A. Compulsorily Notifiable.											
Small-pox, . . .	...	..	...	...	...	...	...	...	...	...	...
Scarlet Fever, . .	64	279	165	68	87	65	20	21	16	16	17
Diphtheria, . . .	48	218	96	27	21	48	15	17	9	6	4
Typhus Fever, . .	...	...	...	...	...	...	...	...	...	...	...
Typhoid . . .	...	1	...	...	...	...	...	0·1	...	...	...
Paratyphoid "B," .	1	3	2	1	...	8	0·3	0·2	0·2	0·2	...
Dysentery, . . .	17	21	8	4	2	45	5	2	1	1	0·4
Acute Poliomyelitis, .	...	...	2	...	...	...	...	...	0·2	...	...
Epidemic Cerebro Spinal-Meningitis,	...	...	2	...	...	2	...	...	0·2	...	...
Epidemic Encephalitis, .	...	...	1	...	...	3	...	...	0·1	...	...
Acute Primary Pneumonia,	73	223	50	29	17	93	23	17	5	7	3
Acute Influenzal Pneumonia,	1	19	3	4	3	4	0·3	1	0·3	1	0·6
Respiratory Tuberculosis,	22	39	52	16	13	8	7	3	5	4	3
Other Tuberculosis, .	23	52	36	5	8	5	7	4	3	1	2
Erysipelas, . . .	10	54	17	4	9	25	3	4	2	1	2
Puerperal Fever, . .	5	16	5	1	...	21	2	1	1	0·2	...
Ophthalmia Neonatorum,	16	23	6	1	...	5	5	2	1	0·2	...
Malaria, ...	...	2	2	...	2	1	...	0·2	0·2	...	0·4
Chicken Pox, . . .	37	108	47	20	23	162	12	8	4	5	5
B. Not Compulsorily Notifiable.											
Puerperal Pyrexia (non-septic),	1	2	1	...	..	21	0·3	0·2	0·1	...	...
Measles, ...	304	917	374	92	47	78	96	69	35	22	9
German Measles, . .	6	31	13	9	3	3	2	2	1	2	1
Whooping Cough, . .	94	268	136	29	9	43	30	20	13	7	2
Total, . . .	722	2276	1018	310	244	640	228	172	97	74	49

TABLE IV.—ABERDEEN.—MORBIDITY AND MORTALITY OF INFECTIOUS DISEASES DURING 1928.

DISEASE.		No. of Cases and Deaths at various Age-Periods.								Cases Removed for Institutional Treatment.			Cases receiving Treatment at Home.
										Municipal Hospitals.			
		At all Ages	Under 1 year	1·5 years	5-15 years	15-25 years	25-45 years	45-65 years	65+ years	City Hospital.	Woodend Hospital.	Other Institutions.	
A. Compulsorily Notifiable.													
Small-pox	Cases	...	...	...	..	...	...	...	...	...	...	...	...
	Deaths	...	...	...	...	...	...	...	...	...	...	..	...
Scarlet Fever	Cases	728	1	157	390	123	48	9	...	562	...	...	166
	Deaths	*5*	...	*4*	*1*	...	...	...	...	*4*	...	...	*1*
Diphtheria......	Cases	458	12	104	239	67	33	3	...	453	..	...	5
	Deaths	*15*	*1*	*7*	*7*	...	...	...	...	*14*	...	...	*1*
Typhoid and Paratyphoid	Cases	16	1	1	2	5	4	2	1	10	...	6	...
	Deaths	*1*	*1*	..	...	...	...	...	...	*1*	...	...	...
Dysentery	Cases	97	8	33	20	5	17	10	4	52	9	5	31
	Deaths	*1*	...	...	*1*	...	...	...	...	*1*	...	...	...
Acute Poliomyelitis	Cases	2	2	...	...	...	...	...	...	1	...	...	1
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...
Epidemic Cerebro Spinal-Meningitis	Cases	4	3	1	...	...	...	...	...	3	...	1	...
	Deaths	*3*	*2*	*1*	...	...	...	...	...	*2*	...	*1*	...
Epidemic Encephalitis	Cases	4	...	...	...	1	3	...	...	...	...	3	1
	Deaths	...	...	...	...	...	...	...	...	...	...	...	...
Acute Pneumonia—													
(*a*) Primary ...	Cases	485	89	138	85	48	61	40	24	24	171	50	240
	Deaths	*112*	*39*	*21*	*1*	*3*	*13*	*18*	*17*	*8*	*17*	*19*	*68*
(*b*) Influenzal	Cases	34	1	3	3	3	10	9	5	...	8	1	25
	Deaths	*10*	...	*1*	...	*1*	*1*	*6*	*1*	...	*2*	*1*	*7*
Tuberculous Diseases—													
(*a*) Respiratory	Cases	150	...	4	17	41	53	29	6	34	34	16	66
	Deaths	*113*	...	*1*	*1*	*16*	*48*	*36*	*11*	*13*	*16*	*9*	*75*
(*b*) Other	Cases	129	10	33	35	26	15	9	*1*	25	22	8	74
	Deaths	*55*	*7*	*22*	*7*	*5*	*7*	*7*	...	*13*	*4*	*16*	*22*
Erysipelas	Cases	119	6	3	8	13	21	53	15	54	1	3	61
	Deaths	*6*	*3*	1	...	...	...	...	*2*	*5*	...	...	*1*
Puerperal Fever ...	Cases	48	...	...	...	21	27	...	...	36	...	7	5
	Deaths	*10*	...	...	...	*2*	*8*	...	...	...	*5*	*3*	*2*
Ophthalmia Neonatorum	Cases	51	51	...	...	..	...	...	...	4	...	3	44
Malaria	Cases	7	...	...	...	1	6	...	...	1	...	...	6
	Deaths	...	...	...		...	...	...	...	...	...	...	...
Chicken Pox...	Cases	397	41	114	236	3	3	..	...	6	...	12	379
	Deaths	...	...	...	...	...	..	...	...	...	...	...	...
B. Not Compulsorily Notifiable													
Puer-Pyrexia (non-septic)	Cases	25	...	...	...	7	18	...	...	5	2	17	1
Measles	Cases	1812	91	674	1018	24	5	...	...	145	...	...	1667
	Deaths	*50*	*20*	*29*	*1*	...	...	...	....	*18*	...	...	*32*
German Measles ...	Cases	65	...	5	57	2	1	...	...	5	...	...	60
	Deaths	...	...	..	...	...	...	...	...	...	...	...	...
Whooping Cough......	Cases	579	104	180	295	...	...	...	...	32	...	13	534
	Deaths	*37*	*15*	*20*	*2*	...	...	...	..	*10*	...	...	*27*
Total	Cases	5210	420	1450	2405	390	325	164	56	1452	247	145	3366
	Deaths	*418*	*88*	*107*	*21*	*27*	*77*	*67*	*31*	*89*	*44*	*49*	*236*

TABLE V.—ABERDEEN.—MORBIDITY AND MORTALITY OF INFECTIOUS DISEASES

(Excluding Tuberculosis)

DURING EACH YEAR FROM 1918 TO 1928.

(Not corrected for transferred deaths.)

DISEASE.		1928	1927	1926	1925	1924	1923	1922	1921	1920	1919	1918	ANNUAL AVERAGE.	
													1918 to 1927.	1908 to 1917.
A. Compulsorily Notifiable.														
Small-pox,	No. of Cases, ...	0	0	0	1	1	1	0	0	0	0	8	1·1	0·6
	No. of Deaths, ...	0	0	0	0	0	0	0	0	0	0	0	0·0	0·1
	Percent. of Deaths	0	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	*0*	0·0	16·7
Scarlet Fever, ...	No. of Cases, ...	728	702	843	712	197	271	310	706	409	270	290	471·1	1105·9
	No. of Deaths, ..	5	3	8	15	3	4	9	8	4	4	3	6·1	38·8
	Percent. of Deaths	0·7	*0·4*	*0·9*	*2·1*	*1·5*	*1·5*	*2·9*	*1·1*	*1·0*	*1·5*	*1·0*	1·3	3·5
Diphtheria,	No. of Cases, ...	458	303	323	432	286	189	292	733	560	561	357	403·6	729·1
	No. of Deaths, ...	15	15	20	22	11	8	14	36	29	32	21	20·8	49·9
	Percent. of Deaths	3·3	*5·0*	*6·2*	*5·1*	*3·8*	*4·2*	*4·8*	*4·9*	*5·2*	*5·7*	*5·9*	5·2	6·8
Typhus Fever, ...	No. of Cases, ...	0	0	0	0	0	0	0	0	0	0	0	0·0	0·3
	No. of Deaths, ...	0	0	0	0	0	0	0	0	0	0	0	0·0	0·0
Typhoid and Para-typhoid,	No. of Cases, ...	16	7	3	40	9	21	8	7	8	23	102	22·8	30·0
	No. of Deaths, ...	1	0	0	0	1	3	0	0	2	5	14	2·5	4·2
	Percent. of Deaths	6·3	*0*	*0*	*0*	*11·1*	*14·3*	*0*	*0*	*25·0*	*21·7*	*13·7*	11·0	14·0
†Dysentery,	No. of Cases, ...	97	48	44	15	2	0	6	24	17	7	...	...	...
	No. of Deaths, ...	1	4	1	0	0	0	1	7	4	0	...	...	...
*Acute Polio-myelitis,...	No. of Cases, ...	2	3	5	5	6	0	9	8	5	1	2	4·4	...
	No. of Deaths, ...	0	0	0	0	0	0	0	2	0	1	1	0·4	...
Ep. Cerebro-Spinal Meningitis,	No. of Cases, ...	4	2	3	1	4	5	3	5	3	12	4	4·2	6·0
	No. of Deaths, ...	3	2	2	0	3	3	2	3	1	10	4	3·0	3·8
‡Epidemic Encephalitis	No. of Cases, ...	4	1	0	9	7	0	0	3	...	...	...	...	...
	No. of Deaths, ...	0	0	0	0	3	0	0	1	...	...	...	...	...
†Acute Pneu-monia, Pri-mary,	No. of Cases,..	485	579	377	497	383	335	404	354	393	109	...	...	...
	No. of Deaths,	112	124	97	102	121	107	179	131	190	50	...	...	...
Influ-enzal,	No. of Cases,..	34	136	57	39	77	17	141	56	87	15	...	...	...
	No. of Deaths,	11	21	13	6	29	6	64	10	32	1	...	...	...
Erysipelas,	No. of Cases, ...	119	95	120	124	92	110	110	170	158	141	102	122·2	181·7
	No. of Deaths, ...	6	2	5	9	4	4	11	4	6	2	6	5·3	5·6
Puerperal Fever, ...	No. of Cases, ...	48	38	36	18	15	15	16	13	13	10	8	18·2	11·5
	No. of Deaths, ...	10	9	8	10	8	8	13	6	5	1	6	7·4	7·0
	Percent. of Deaths	20·8	*23·7*	*22·2*	*55·6*	*53·3*	*53·3*	*81·3*	*46·1*	*38·5*	*10·0*	*75·0*	40·7	60·9
*Ophthalmia Neonatorum	No. of Cases, ...	51	54	48	59	69	63	47	100	112	99	39	69·0	...
†Malaria, ...	No. of Cases, ...	7	4	6	4	3	3	5	55	138	77	..	...	...
	No. of Deaths, ...	0	0	0	1	0	0	0	1	1	0	...	...	...
¶Infective Jaundice		0	0	0	0	0	...	...	...	...	...	...	...	...
αPlague		0	0	0	...	...	...	...	...	...	...	...	...	...
§Chicken Pox, ...	No. of Cases, ...	397	336	265	266	318	255	46	725	256	...	...	...	...
	No. of Deaths, ...	0	0	0	0	0	1	0	3	0	...	...	...	...
B. Not Compulsorily Notifiable.														
Puer. Pyrexia (Non-Septic)	No. of Cases, ...	25	...	...	...	...	...	...	..	...	...	...	...	...
‖ Measles, ...	No. of Cases, ...	1812	199	991	1322	1488	594	3684	44	1072	306	788	1048·8	1306·5
	No. of Deaths, ..	50	1	20	27	56	41	142	2	41	2	43	37·5	66·0
	Percent. of Deaths	2·8	*0·5*	*2·0*	*2·0*	*3·8*	*6·9*	*3·9*	*4·5*	*3·8*	*0·7*	*5·5*	3·6	5·1
German Measles,	No. of Cases, ...	65	22	25	362	111	2	11	4	73	42	21	67·3	...
	No. of Deaths, ...	0	0	0	0	0	0	0	0	0	0	1	0·1	...
‖ Whooping Cough, ...	No. of Cases, ...	579	395	362	933	1712	87	1444	305	325	713	777	705·3	747·3
	No. of Deaths, ...	37	15	15	53	71	5	101	2	28	31	54	37·5	53·7
	Percent. of Deaths	6·4	*3·8*	*4·1*	*5·7*	*4·1*	*5·7*	*7·0*	*0·7*	*8·6*	*4·3*	*6·9*	5·3	7·2

† Notification commenced Aug., 1919.
* Notification commenced May, 1913.
‡ Notification commenced Aug., 1921.
¶ Compulsorily notifiable from Dec., 1924.
α Compulsorily notifiable from Oct., 1926.
§ Compulsorily notifiable from May, 1920, to Sept., 1921; from July to December, 1923; and from March, 1927, to December, 1930.
‖ Compulsory notification ceased Feb., 1903.

TABLE VI.—ABERDEEN.—STATEMENT OF NUMBER OF DECLARATIONS OF CONSCIENTIOUS OBJECTION TO VACCINATION.

Year.	Registered Births.	Deaths before Vaccination	Survivors.	Con-scientious Objectors.	Per-centage.	Year.	Registered Births.	Deaths before Vaccination.	Survivors.	Con-scientious Objectors.	Per-centage.	Year.	Registered Births.	Deaths before Vaccination.	Survivors.	Con-scientious Objectors.	Per-centage.
1907	4504	470	4034	84	2·1	1914	4041	481	3560	413	11·6	1921	4326	457	3869	364	9·4
1908	4450	511	3939	219	5·6	1915	3837	483	3354	412	12·3	1922	4038	398	3640	348	9·6
1909	4492	526	3966	339	8·5	1916	3627	401	3226	345	10·7	1923	3847	317	3530	305	8·6
1910	4300	448	3852	362	9·4	1917	2966	326	2640	347	13·1	1924	3527	352	3175	246	7·7
1911	4028	478	3550	406	11·4	1918	2817	351	2466	260	10·5	1925	3535	324	3211	262	8·2
1912	4152	511	3641	478	13·1	1919	3481	357	3124	357	11·4	1926	3557	291	3266	262	8·0
1913	3872	467	3405	491	14·4	1920	5010	500	4510	290	6·4	1927	3324	277	3047	243	8·0

Diphtheria.

Of this disease, 458 cases were notified in 1928, as compared with 303 cases in 1927. The case-mortality for 1928 was 3·3 per cent., which is the lowest yet recorded. The annual average number of cases during the 1918-1927 decennium was 404, with a case-mortality of 5·2 per cent.

Of contacts bacteriologically examined, 0·4 per cent. of the swabbings gave a positive finding. During the 1918-1927 decennium, the percentage of positive swabbings averaged 2·6.

SUSCEPTIBILITY TESTS AND ACTIVE IMMUNISATION AGAINST DIPHTHERIA AND SCARLET FEVER.

Table VII. relates to the immunisation services provided by the staff of the Health Department for the year 1928:—

TABLE VII.—DIPHTHERIA AND SCARLET FEVER—SUSCEPTIBILITY TESTS AND ACTIVE IMMUNISATION BY CITY HEALTH DEPARTMENT. YEAR 1928.

	City Hospital.				Child Welfare Centres.		Schools		Out-Patients.	
	Staff.		In-Pats.							
	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.	Pos.	Neg.
Schick Tests,	44	59	77	94	31	12	896	426	183	107
Dick Tests,	40	66	174	236	36	7	623	707	141	204
Diphtheria Prophylactic Injections,	72		443		2		1,178		194	
Scarlatina Prophylactic Injections,	37		...		6		367		80	
Combined Diphtheria and Scarlatina Prophylactic Injections	46		79		1,704		2,646		665	

Typhoid and Paratyphoid Fevers.

One case of typhoid fever was reported in 1928, in a child aged 13 years, and the source of infection was not determined.

Fifteen cases of paratyphoid B. fever were notified. Six cases occurred in an institution in the City as the result of infection from a paratyphoid carrier admitted to the institution. The source of infection was not determined in the other cases. There was 1 death, in a child aged ten months.

In the preceding decennium, there was an annual average of 23 cases and 3 deaths.

Venereal Diseases.

A detailed analysis of cases of venereal diseases which have come to the knowledge of the Health Department is given in the section of this Report dealing with the Venereal Diseases Services. During the year there were 183 fresh cases of syphilis, 374 of gonorrhœa, 8 of soft chancre, and 7 of mixed infections.

Ophthalmia Neonatorum.

This disease was responsible for 51 cases during 1928, as compared with an average annual number of 69 during the preceding ten years.

DISEASES SPREAD BY DISCHARGES FROM THE MOUTH AND NOSE.

Measles.

The number of cases of measles coming to the knowledge of the Health Department in 1928 was 1,812, the average yearly number of cases during the 1918-1927 decennium being 1,049. This disease was prevalent in epidemic form from February to June, when a total of 1,763 cases were notified for these five months. The case-mortality was 2·8 per cent., as against an average of 3·6 for the preceding ten years. The deaths, with one exception, were confined to children under four years of age.

Whooping Cough.

Of this disease, 579 cases were reported, with 37 deaths, giving a case-mortality of 6·4 per cent. Differing from measles, the type of disease was more severe than usual. The deaths were mainly confined to children under two years of age. The average annual number of cases during the 1918-1927 decennium was 705, with a case-mortality of 5·3.

German Measles.

Sixty-five cases of this disease were brought to the knowledge of the Health Department, as against an average of 67 during the 1918-1927 decennium. There were no deaths.

Influenza.

Influenza is not a compulsorily notifiable disease, apart from influenzal pneumonia. Influenza (apart from influenzal pneumonia) was registered as the cause of 10 deaths during 1928, as against 21 deaths in 1927.

Acute Primary and Influenzal Pneumonia.

There were 485 cases of primary pneumonia notified in 1928, with 112 deaths. Of influenzal pneumonia, there were 34 cases, with 11 deaths.

Meningococcic Meningitis.

Of this disease, 4 cases were notified in children under 1 year. Three of the cases proved fatal. There was no discoverable relationship between the cases. During the preceding ten years, the average annual number of cases was 4·2, and the average annual number of deaths, 3·0.

Acute Poliomyelitis.

Two cases of this disease were notified in children aged eight and nine months respectively. In both cases the paralysis was confined to the right arm. There were no deaths.

Epidemic Encephalitis.

Four old-standing cases not previously notified were brought to the knowledge of the Health Department. Three of the cases were removed for institutional treatment.

Tuberculosis.

As has been stated in previous Reports, many investigations have shown that only about 1 per cent. of cases of pulmonary and generalised tuberculosis in man are due to the bovine type of the bacillus, whereas in some 66 per cent. of tuberculosis of the neck glands, in 50 per cent. of abdominal tuberculosis, in 50 per cent. of tuberculosis of the skin, in 25 per cent. of tuberculosis of the bones and joints, in 20 per cent. of tuberculosis of the meninges, and in 18 per cent. of genito-urinary tuberculosis, the infection is of the bovine type. Applying these proportions to the various forms of tuberculosis notified in Aberdeen, it is found that, of the 279 cases notified in 1928, 225, or 81 per cent., were infections with the human type of tubercle bacilli, and that 54, or 19 per cent., were infections with the bovine type bacilli. Similarly, of 168 deaths in Aberdeen, from all forms of tuberculosis in 1928, it is estimated that 154, or 92 per cent., of these deaths were due to tubercle bacilli of the human type, and that 14, or 8 per cent., were due to bovine type bacilli.

A detailed analysis of the cases and deaths from tuberculosis in Aberdeen is given in the section of this Report relating to the Tuberculosis Services.

Chicken-pox.

This disease, by order of the Scottish Board of Health, has been made compulsorily notifiable until December, 1930. During 1928, 397 cases of chicken-pox were notified.

DISEASES SPREAD BY THE EXCRETA.

Typhoid and Paratyphoid Fevers.

These diseases have already been referred to under the group of diseases for which there is a specific prevention.

Dysentery.

During 1928, there were 97 cases of dysentery notified, of which 30 proved to be infections with the Sonne bacillus and 67 with the Flexner bacillus. There was 1 death from Flexner dysentery in a child aged 6 years.

Continued Fever.

In the *Journal of Pathology and Bacteriology*, 1928, Vol. XXXI., p. 511, a case of continued fever due to *B. alkalescens (Eberthella Alkalescens)* Andrewes is recorded by Drs. J. Smith and A. M. Fraser (City Hospital, Aberdeen), and the following is an extract:—

> Andrewes (1918) in a paper on the differentiation of the true dysentery bacilli from allied species gave a detailed description of a non-lactose fermenting bacillus which he named *B. alkalescens.*
>
> The clinical and bacteriological findings in what appears to be the first recorded case of continued fever due to *B. alkalescens* will therefore be of interest.
>
> *Clinical Description.*
>
> Mrs. B., aged 20 years, was confined on 13/11/27. Labour was uncomplicated and she remained well until 15/11/27, when she had a rigor and pyrexia. She was admitted to hospital with a temperature of 103° F., pulse rate of 128, and respiration rate of 30 per minute. She was extremely toxic in appearance. The heart showed no abnormality. The

chest showed diminished movement on right side with slightly impaired resonance over right lower lobe anteriorly and posteriorly. Breath sounds were higher pitched than usual, but no definite pneumonic or pleuritic process was demonstrable. The abdomen was grossly distended and tenderness of the tubal regions was elicited only on deep palpation. There was no rigidity present in any area and no enlargement of the liver or spleen was demonstrated. The uterus was involuted, the os being somewhat patulous and the discharge bloodstained. The parametrium was normal. A perineal tear one inch long was evident. Urinary symptoms were absent.

On 19/11/27, four days after the initial symptoms, marked generalised icterus developed; the other features remained as formerly. On 20/11/27 persistent hiccup was a distressing feature and stools were loose. Tonsilitis due to *Streptococcus hæmolyticus* also developed. The general condition remained unchanged during the next three days except that there was slight increase in pain in the tubal regions and a suspicion of fullness in the right fornix. A transient albuminuria developed and there occurred a considerable degree of anæmia, since a blood examination at this time gave :—

Red blood cells, ...	2,020,000 per c.mm.
Leucocytes	13,800 per c.mm.
Hæmoglobin	40 per cent.

The red blood cells showed anisocytosis, poikilocytosis, polychromasia, and punctate basophilia, while a differential leucocyte count gave 66 per cent. of neutrophile polymorphonuclears, 4 per cent. of mononuclears and 30 per cent. of small lymphocytes.

On 24/11/27 there was evident improvement; the icterus had begun to disappear and the abdominal distension to subside and, notwithstanding the continued pyrexia, the patient felt considerably improved. Throughout the febrile period of some three weeks' duration the patient ran a typical remittent temperature, the daily remissions commonly being from 101° or 102° F. to 99° F. Following the completion of defervescence on 12/12/27 the patient's convalescence was rapid and uninterrupted. She was discharged fit on 23/12/27.

Bacteriological Findings.

A blood culture taken on admission showed a gram-negative non-motile, non-lactose fermenting bacillus. Accordingly another blood culture was made and the same organism was obtained. The fæces, the urine, and a swab of the bloodstained secretions from within the uterus were next examined by the usual methods and all specimens were found to contain the same organism. A third blood culture made on 26/11/27 again showed the same bacillus, but a fourth culture on 8/12/27 remained sterile.

The patients' blood serum obtained on 18/11/27 was tested for its agglutinative action on a blood, a urinary and a fæcal strain of the infecting organism, on *B. typhosus* [*Eberthella typhi*], on *B. paratyphosus A.* [*Salmonella paratyphi*] and *B.* [*S. schottmülleri*], *B. dysenteriæ Sonne* and *B. dysenteriæ Flexner* [*E. paradysenteriæ*] *V*, *W*, *X*, *Y*, and *Z*. The results showed that the serum agglutinated the blood strain in a dilution of 1 in 120 and the urinary and fæcal strains in a dilution of 1 in 480. No agglutination was obtained in a 1 in 50 dilution against the typhoid or paratyphoid organisms, or against *B. dysenteriæ Sonne*. The serum however agglutinated *Flexner X* in a dilution of 1 in 50 and *Flexner Y* in a dilution of 1 in 400. At this time also the three strains of the infecting organisms were tested against the stock antisera for *B. typhosus*, *B. dysenteriæ Flexner* (polyvalent), and *B. dysenteriæ Sonne*. The anti-typhoid serum agglutinated them in a dilution of 1 in 200 and the Flexner dysentery serum in a dilution of 1 in 480.

It became apparent that the infecting organism did not belong to the true Flexner dysentery group and the preliminary fermentation tests suggested its similarity to *B. alkalescens* Andrewes. Accordingly a culture of this organism was obtained from the National Collection of Type Cultures and its cultural fermentation and serological characteristics were fully examined and compared with the freshly isolated strains.

The strains obtained from the patient were found to be identical culturally and serologically with that obtained from the National Collection.

DISEASES SPREAD BY CUTANEOUS INOCULATION.

Erysipelas.

During 1928, there were 119 cases of this disease reported, with 6 deaths. In the 1918-1927 decennium, the average annual number of cases was 122, and the deaths, 5.

Scabies.

A record of the number of cases of other inflammatory affections of the skin, including scabies, receiving treatment at the Skin Department of the City Hospital is given in the section of this Report dealing with Municipal Hospital Services (p. 27).

DISEASES ASSOCIATED WITH CHILD-BIRTH.

Puerperal Pyrexia.

During 1928, 73 cases of puerperal pyrexia were brought to the notice of the Department as having occurred in the City. Of these, 25 were differentiated from puerperal fever, the cause of the rise of temperature being attributed to bacilluria, pyelitis, mastitis, &c. One case occurred in the practice of a midwife, 4 in the practice of medical practitioners, and 20 in public institutions. Of the 25 cases, 1 died, the death occurring in a public institution, and is further referred to under "Maternal Mortality."

Of the 48 cases of puerperal sepsis, 8 occurred in the practice of midwives, with 1 death; 21 in the practice of medical practitioners, with 4 deaths; and 19 in the practice of public institutions, with 5 deaths. Forty-three cases were treated in public institutions, and 5 received treatment at home. In 7 of the cases pregnancy terminated in abortion, with a fatality in only 1 case.

An outbreak of septicaemia occurred in a maternity institution in Aberdeen in January, 1928. The maternity institution in question has accommodation extending to 20 maternity beds and 8 beds for ante-natal cases.

Up to and including this period overcrowding of the maternity wards had been permitted. Arrangements were subsequently made whereby the accommodation was limited to 20 maternity beds, relief being secured by cases being admitted to Woodend Hospital and by the reception of normal cases at Burnside Home during the last three or four days of the puerperium.

On investigation it was ascertained that a total of 12 mothers had developed puerperal fever within a period of five weeks, and of these, 4 died, including 2 with other grave complications of the puerperium. Laboratory investigation proved that the outbreak was due to haemolytic streptococcal infection. Concomitant with this outbreak of puerperal fever in the mothers, there was an outbreak of icterus neonatorum among the infants in the institution, which resulted in the deaths of 7 infants from this cause. Autopsies were obtained in 2 of the 7 fatal cases of icterus neonatorum, and in these cases it was proved that the cause of death was septicaemia, due to *S. haemolyticus.*

Some 17 mothers who had been in contact with these cases of puerperal sepsis were subjected to bacteriological examination. Haemolytic streptococci were isolated from both the uterine and throat cultures of one of the contacts, from the uterine cultures of four other contacts, and from the throat cultures of three other contacts. Throat cultures were also obtained from the nursing staff, consisting of 12 nurses, and five of the nurses gave positive results.

It was not possible to determine with any accuracy the original source of the disease, although the admission to hospital of a case of septic abortion just prior to this period was regarded with suspicion. In fact, the infection had spread and the outbreak was fully developed before the intervention of the Health Department with the ensuing isolation of cases and infective contacts put an end to it.

The Aberdeen statistics of puerperal sepsis indicate that in this institution similar outbreaks of puerperal sepsis spread by gross contagion had occurred in 1922 and 1924.

Reference to puerperal sepsis in Aberdeen is also made in the section of this Report dealing with "Maternal Mortality," page 40.

Ophthalmia Neonatorum.

During 1928, there were 51 cases of ophthalmia neonatorum, which is equivalent to 15 cases per 1,000 registered births. Additional information regarding ophthalmia neonatorum is given in the section of this Report dealing with Maternity and Child Welfare Services.

INSECT AND VERMIN-BORNE DISEASES.

Typhus Fever, Trench Fever, Infective Jaundice.

No cases during 1928.

Malaria.

Seven cases were reported, all of which contracted the infection abroad. There were no deaths.

CHAPTER II.

ENVIRONMENTAL HYGIENE.

HOUSING CONDITIONS.

A review of the housing situation in Aberdeen is contained in the last Report of the Medical Officer of Health.

FACTORIES, WORKSHOPS, AND WORKPLACES.

Factories.—Table VIII. is submitted giving details of the administration of the Factory and Workshop Act, 1901. No prosecutions had to be instituted under the Act, but a large number of defects discovered during the routine inspections were remedied.

Table VIII.—Aberdeen.—Factories, Workshops, and Workplaces, 1928.

1.—Inspection of Factories, Workshops, and Workplaces.

Including Inspections made by Sanitary Inspectors.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (including Factory Laundries) . .	1,724	439	0
Workshops (including Workshop Laundries) .	2,313	324	0
Workplaces (other than Outworkers' premises) .	67	33	0
Total	4,104	796	0

2.—Defects Found in Factories, Workshops, and Workplaces.

Particulars.	Number of Defects			Number of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
Nuisances under the Public Health Acts.*				
Want of cleanliness	642	633	0	0
Want of ventilation	5	4	0	0
Overcrowding	1	1	0	0
Want of drainage of floors	0	0	0	0
Other nuisances	105	95	0	0
Sanitary accommodation: Insufficient . . .	2	2	0	0
Sanitary accommodation: Unsuitable or defective	42	42	0	0
Sanitary accommodation: Not separate for sexes	0	0	0	0
Offences under the Factory and Workshop Acts.				
Illegal occupation of underground bakehouse (s. 101)	0	0	0	0
Other offences . . . . (Excluding offences relating to outwork and offences under the Sections mentioned in the Schedule to the Scottish Board of Health (Factories and Workshops Transfer of Powers) Order, 1921.)	0	0	0	0
Total	797	777	0	0

---

* Including those specified in Sections 2, 3, 7, and 8 of the Factory and Workshop Act, 1901, as remediable under the Public Health Acts.

Workshops.—The number of workshops, exclusive of bakehouses, registered at the end of 1928 was 732, as compared with 740 in 1927.

Excellent work continues to be done by the Sanitary Inspector and his staff in the sanitary control of the workshops of the City. Every workshop is inspected at least once a year, and an effort is made to keep it in accordance with the requirements of the Public Health Act and the Factory and Workshop Acts. Fish-curing and provision-curing works are inspected very frequently, some of them almost daily, the primary object of the visit being the inspection of food. The bulk of the defects found during 1928 had reference to want of cleanliness.

In regard to Section 61 of the Factory and Workshop Act, 1901, whereby it is enacted that no woman or girl shall be employed within a factory or workshop within four weeks after she has given birth to a child, it has been ascertained through the Health visitors that there is no evidence that women are so employed in Aberdeen.

Bakehouses.—The bakehouses, of which there were 77 in the City in 1928, as compared with 78 in 1927, were, as usual, inspected every quarter or oftener, and were found, on the whole, to be in a satisfactory condition. Certain sanitary defects in connection with bakehouses were remedied at the suggestion of the Health Department.

Home Workers.—With regard to home workers, the usual routine inspections were made in connection with the sanitary condition of the premises and the prevention of infectious diseases.

Inspection of Plans.—During the year under review, plans of 30 premises, chiefly alterations and additions to existing buildings, were examined and reported on. Certain recommendations in regard to the sanitary requirements of the premises were given effect to prior to the approval of the plans by the Town Council.

OFFENSIVE TRADES.

The offensive trades in Aberdeen, within the meaning of the Public Health Act, are concerned chiefly with tallow-melting or oil extracting from ox bones or fish livers, soap boiling, slaughtering, knackering, hide factoring, and the manufacture of manures and fish meal.

Bye-laws made by the Town Council for regulating the business of Manufacturer of Fish Manure or Fish Meal came into operation in January, 1928.

During the year two applications were received for sanction to establish the business of the manufacture of fish meal.

The respective particulars of these applications were as follows:—

(1) To establish the business of the manufacture of fish meal in premises to be erected on ground near the extreme end of Point Law.

(2) To establish the business of the manufacture of fish meal, fish powders, and fish glue in premises to be erected on the north side of North Esplanade West.

In the first instance, application was granted by the Town Council on 9th May, 1928, and an appeal was lodged on behalf of the objectors on 25th May. Two inquiries were held by Commissioners appointed by the Scottish Board of Health, and after an undertaking had been given by the respondents to fulfil certain prescribed conditions, the appeal was dismissed. In the other instance, application was granted by the Town Council on 1st April, 1929, and an appeal has now been intimated. Full details are given in the Report of the Sanitary Inspector for the year 1928.

ATMOSPHERIC CONDITIONS.

Weather and Disease.—In Table IX. is summarised the state of the weather in Aberdeen for each month throughout the year under review, along with the average for the thirty years 1897-1926.

As regards sunshine, the month which enjoyed the most sunshine was June, with 191 hours for the whole month, or fully six hours a day; while the month with the least sunshine was December, with 43 hours for the whole month, or fully one hour a day. The total amount of sunshine for the year under review was below the average for the years 1897-1926.

December was the coldest month, with a temperature of 39·1° F., the warmest month being July, with a temperature of 57·4° F. The difference in temperature between the coldest and warmest months was 18·3° F., which was slightly above the average for the years 1897-1926 (17·4°). The mean temperature for the whole year was 46·2°, the average for preceding years being 46·3°. The mean daily range of temperature, or the difference between the highest and lowest for the day, averaged 9·2 in 1928.

During 1928, the driest month was February, with 0·6 inches of rainfall, while November was the wettest, with 3·9 inches of rainfall. The total amount of rainfall during the year is slightly higher than the average for preceding years.

In 1928, the most prevalent winds in Aberdeen were from the south and west, the least prevalent being north-easterly winds.

DRAINAGE.

As recorded in the previous Annual Report, a survey of the sanitary conveniences and drainage arrangements of all the tenemented properties was completed in 1926. Improvement of the sanitary conveniences in existing houses forms part of the housing problem.

WATER SUPPLY.

The progress made during 1928 with the construction of the new works under the 1916 Corporation Water Act is recorded in the reports of the Burgh Surveyor and Water Engineer.

The instructive table on page 18, measuring in percentages the degree of purity of the water in terms of bacillus coli, provides evidence of the present state of the water as compared with the two previous years.

TABLE IX.—ABERDEEN.—METEOROLOGICAL RECORD FOR EACH MONTH (From King's College Observatory)

YEAR 1928.

MONTH.	BAROMETRIC PRESSURE (at 32° F. and Sea Level).			TEMPERATURE OF ATMOSPHERE.				Mean Daily Temp. of Ground (4 feet below surface)	RELATIVE HUMIDITY. Sat.=100.	RAIN-FALL		SUNSHINE.		*WIND.									
														DIRECTION; AND DURATION IN HOURS.									Velocity
	Absolute Highest	Absolute Lowest.	Mean Daily Range.	Absolute Highest	Absolute Lowest.	Mean Daily Temp.	Mean Daily Range.			Duration.	Amount	Duration.	Percentage of possible Sunshine.	N.	N.E.	E.	S.E.	S.	S.W.	W.	N.W.	Calm †	Average No. miles per day.
	Inches.	Inches.	Inches.	°F.	°F.	F.	F.	°F.		Hours.	Inches.	Hours.											
January, .	30·26	28·78	0·45	49·1	30·9	39·6	7·8	39·6	82	129	3·8	54	23	9	12	14	27	**259**	202	170	36	15	291
February, .	30·69	28·63	0·33	54·3	27·3	40·2	8·9	39·4	79	32	0·6	86	32	16	...	...	77	**211**	170	164	34	24	278
March, .	30·49	28·63	0·17	51·1	29·1	40·1	6·5	40·5	83	146	3·6	47	13	62	59	138	**170**	**170**	40	14	56	35	318
April, .	30·13	29·30	0·15	56·1	29·1	43·5	9·0	42·7	79	103	2·6	120	28	93	32	74	80	**192**	54	38	134	23	260
May, .	30·38	29·54	0·13	58·5	34·7	46·1	8·6	46·4	82	108	1·6	124	24	148	140	89	60	26	6	42	**196**	37	212
June, .	30·38	29·06	0·20	64·9	39·9	50·5	10·9	48·7	75	107	3·3	191	36	103	46	39	65	100	73	128	**140**	26	236
July, .	30·34	29·41	0·16	73·4	43·3	57·4	11·6	51·6	75	85	2·1	154	29	23	27	32	40	135	**180**	131	135	41	221
August, .	30·24	29·36	0·17	68·2	40·8	55·5	9·5	53·4	84	93	2·3	112	24	74	88	81	80	**163**	47	105	76	30	207
September, .	30·50	29·64	0·19	64·4	35·6	51·7	11·1	53·3	81	103	2·7	147	38	62	24	9	14	173	86	141	**174**	37	201
October, .	30·29	29·02	0·27	62·2	32·7	47·2	10·1	50·1	83	108	2·8	86	27	50	10	32	40	**244**	142	128	77	21	239
November, .	30·32	28·08	0·34	56·5	27·3	43·9	8·0	47·1	83	148	3·9	63	26	72	9	31	17	136	147	**151**	144	13	263
December, .	30·42	29·09	0·34	53·8	30·6	39·1	8·0	43·9	78	104	2·8	43	20	4	21	77	55	130	128	**204**	100	25	304
Monthly Average	30·37	29·05	0·24	59·4	33·4	46·2	9·2	46·4	80	106	2·7	102	27	60	39	51	60	**162**	106	118	109	27	253
Total for Year, .	...	...	...	...	...	...	...	...	...	1266	32·1	1227	...	716	468	616	725	**1939**	1275	1416	1302	327	...
AVERAGE FOR THIRTY YEARS, 1897-1926.																							
January, .	30·53	28·96	0·31	52·8	27·0	39·8	7·6	40·6	83	111	2·5	41	18	6	3	21	101	**196**	184	123	95	16	282
February, .	30·39	28·79	0·27	52·8	27·3	39·6	7·2	40·4	82	135	3·0	54	20	29	13	33	129	**160**	121	106	77	10	312
March, .	30·43	28·97	0·23	53·8	27·9	40·2	8·9	40·9	79	93	1·7	102	28	68	35	49	72	122	100	137	**150**	10	233
April, .	30·41	29·14	0·21	57·4	30·2	42·7	9·6	42·7	80	99	2·2	134	32	50	45	70	115	**134**	69	94	128	15	242
May, .	30·33	29·21	0·18	65·4	33·4	47·6	10·7	45·9	79	110	2·9	162	32	82	54	69	83	**154**	91	79	118	13	223
June, .	30·36	29·43	0·15	71·1	40·2	53·0	11·7	50·3	77	67	1·6	166	32	65	35	55	78	123	83	83	**171**	28	220
July, .	30·30	29·24	0·17	74·6	45·7	57·0	11·1	53·6	80	89	3·4	151	29	46	52	61	95	**161**	82	93	123	32	182
August, .	30·33	29·28	0·19	71·1	43·0	55·9	10·8	54·6	80	80	2·3	137	29	40	28	36	65	**202**	104	122	123	24	186
September, .	30·39	29·17	0·24	67·1	36·9	51·7	11·5	53·1	81	93	3·3	125	33	42	18	28	51	**148**	123	145	144	16	212
October, .	30·46	28·85	0·24	61·6	32·0	46·9	9·5	50·2	83	111	3·3	109	34	46	15	25	57	**181**	126	137	127	23	222
November, .	30·50	28·86	0·27	55·0	29·5	41·6	8·3	45·7	83	121	2·7	65	27	24	9	21	46	120	147	167	**173**	12	240
December, .	30·53	28·80	0·28	53·3	26·8	39·7	7·9	42·6	83	115	2·7	39	19	18	8	15	32	147	**190**	165	158	11	254
Monthly Average	30·41	29·06	0·23	61·3	33·3	46·3	9·6	46·7	81	102	2·6	107	28	43	26	40	77	**154**	119	121	132	18	234
Total for Year, .	...	...	...	...	...	...	...	...	...	1224	31·6	1285	...	516	315	483	924	**1848**	1425	1451	1587	210	...

* To indicate the dominant direction, figure with maximum hours is in thick type. The wind data are now obtained from a new pressure-tube anemograph erected in a more open exposure than that of the previous instrument. The values obtained under the new conditions exceed the previous values by about 20 per cent.

† "Calms" now include actual calms and occasions of fluctuating light winds. Previously only flat calms were entered as "calms."

TABLE X.—ABERDEEN.—QUALITY OF WATER.—TYPICAL BACILLUS COLI.

Year.	Samples from.	Absent in 100 c.c. per cent.	Present in 100 c.c. per cent.	Present in 50 c.c. per cent.	Present in 20 c.c. per cent.	Present in 10 c.c. per cent.	Present in 5 c.c. per cent.	Present in 1 c.c. & less per cent.	Remarks.
1928	Cairnton Intake—								
	River Water	...	...	...	1	2	19	30	
	Aberdeen Tap Water	24	9	4	6	6	3	...	
1927	River Water	...	...	2	2	12	32	52	During the frosty weather in November and December, the water was limed for a total period of 35 days.
	Invercannie Filter Outlet	80	8	8	2	..	2	...	
	Aberdeen Tap Water	34	18	18	8	8	12	2	
1926	River Water	...	...	...	...	4	43	53	The water was limed for a total period of 17 days when the river was in a disturbed state after floods, during times of high consumpt of water when the filters were inadequate to deal with the quantity of water required, and when re-sanding of filters was being carried out.
	Invercannie Filter Outlet	69	10	11	4	2	4	...	
	Aberdeen Tap Water	30	17	15	8	13	15	2	
Aberdeen Tap Water, 1907, (*i.e.*, before the Water was filtered.)		...	...	13	...	29	33	25	

CHAPTER III.

SPECIAL HEALTH SERVICES.

MUNICIPAL HOSPITAL SERVICES.

Woodend Hospital Statistics.

Table XI. gives the number of admissions and discharges in 1928.

TABLE XI.—ABERDEEN.—WOODEND HOSPITAL. *Year* 1928.

	In Hospital on Jan. 1.	Admitted during the year.	Discharged during the year.	Died in Hospital.	In Hospital on Dec. 31.
A.—GENERAL HOSPITAL—					
Surgical Cases,	60	435	359	72	64
Medical Cases,	83	728	590	129	92
Gynecological Cases,	10	113	110	2	11
Total,	153	1,276	1,059	203	167
B.—SPECIAL HOSPITAL—					
Tuberculosis—					
(*a*) Respiratory,	52	112	83	27	54
(*b*) Other,	46	98	83	8	53
Ailing Infants,	10	71	67	1	13
Total,	108	281	233	36	120
Total A and B,	261	1,557	1,292	239	287

This is to be compared with the period 15th May to 31st December, 1927, during which the Hospital was functioning though not to its full. For that period the admissions were:—

To General Hospital,		607
To Special Hospital,		145
Tuberculosis Wards,	133	
Ailing Babies' Wards,	12	
Total (7½ months),		752

During 1928 the daily number of patients in the General Hospital under treatment varied from 141 to 187, the average daily number being 162. In the Special Hospital the daily number of patients varied from 92 to 129, the average daily number being 114.

During the year under review the Hospital has been taxed to its utmost to provide accommodation for all the cases for whom admission was demanded. The arrangement with the Parish Authorities, by which admission to Woodend Hospital of all sick poor was an obligation, was occasionally difficult to implement owing to lack of vacancies. The same has been true of the pneumonias, no case of which, however, has been refused admission. In addition, the overflow of cases from the Maternity Hospital has been by arrangement dealt with at Woodend.

The year has seen the stabilisation of the medical, surgical, and radiological consultation services, the personnel of which comprises senior and junior visiting physicians, four surgeons, a gynæcologist, an otologist, a radiologist, and a dentist.

The scope of the Hospital covers the following types of cases:—

Medical, acute and chronic.
Surgical, acute and chronic.
Respiratory Tuberculosis.
Non-respiratory Tuberculosis.
Orthopædic Cases.

In addition to these, a ward was put at the disposal of the Maternity and Child Welfare Officer and has been used mainly for the treatment of rickets in children, preventive and orthopædic.

The surgical and orthopædic cases are tabulated as follows:—

SURGICAL AND ORTHOPÆDIC CASES.

Disease.	M.	F.
BONES.		
Fracture of femur,	4	13
Fracture of tibia,	1	2
Pott's fracture,	1	1
Meta tarsal,	1	—
Clavicle,	—	1
Humerus,	1	2
Colles' fracture,	—	1
Ulna and radius,	—	1
Pes cavus,	1	—
Torticollis,	—	1
Flat foot,	2	—
Spasmodic flat foot,	1	—
Displaced semilunar cartilage,	2	—
Spina bifida,	—	1
Talipes,	1	—
Hallux valgus,	2	—
Osteomyelitis,	1	—
Periostitis,	2	—
Spondylitis,	—	1
Köhler's disease of scaphoid,	1	—
JOINTS.		
Streptococcal arthritis,	2	2
Charcot's disease,	1	1
Traumatic synovitis,	1	—
Dislocation of hip,	—	1
Dislocation of ankle,	—	1
GENITO-URINARY.		
Periurethral abscess,	1	—
Prostatic hypertrophy,	6	—
Perinephric abscess,	1	1
Hydrocele,	1	—
Pyelitis,	—	1
Cystitis,	1	6
Epididymitis,	1	—
Orchitis,	1	—
Paraphimosis,	1	—
Papilloma of bladder,	1	—
Retention of urine,	1	—

SURGICAL AND ORTHOPÆDIC CASES—*continued.*

Disease.	M.	F.
ABDOMEN.		
Umbilical hernia,	2	2
Inguinal hernia,	8	—
Femoral hernia,	1	1
Scrotal hernia,	1	—
Subphrenic abscess,	1	—
Sub-acute obstruction,	1	–
Appendicitis,	2	6
Ovarian cyst,	—	2
Haemorrhoids,	7	–
Varicose veins,	3	2
Abdominal adhesions,	1	—
Phlebitis,	—	2
Cholecystitis,	1	—
Pneumococcal peritonitis,	—	1
Taenia saginata,	—	1
MALIGNANT DISEASE OF—		
Uterus—body,	—	1
Uterus—cervix,	—	3
Mammae,	—	1
Mixed tumour of parotid,	1	—
Liver,	—	2
Oesophagus,	1	—
Colon,	2	8
Small intestine,	1	1
Stomach,	3	1
Lung,	1	—
Prostate,	2	—
Lympho-sarcoma of pharynx,	—	1
Pinna of ear,	1	—
Gall bladder,	—	1
Jaw,	1	—
Humerus,	—	1
Tibia,	1	—
EAR, NOSE, AND THROAT.		
Nasal polypi,	1	—
Tonsillitis,	15	13
Peritonsillar abscess,	2	1
Otitis media,	2	1
Deviated septum,	—	1
Antral suppuration,	1	2
Laryngitis,	1	1
Mastoiditis,	1	—
Alveolar abscess,	—	2
Epithelioma of larynx.	1	—
MISCELLANEOUS.		
Naevus of buttock,	--	1
Frost bite,	1	—
Gangrene of foot,	1	1
Stump neuroma,	1	--
Cellulitis of scalp,		--

Disease.	M.	F.
MISCELLANEOUS—*continued.*		
Cellulitis of heel,	3	--
Cellulitis of leg,	2	1
Suppurating glands of axilla,	2	1
Suppurating glands of neck,	2	1
Cerebral abscess,	—	1
Burns,	2	1
Glaucoma,	1	1
Corneal ulcer,	1	1
Miner's nystagmus,	1	—
Varicose ulcers,	3	3
Syphilitic ulcers,	3	—
Lupus,	–	1
Impetigo,	1	—
Tinea corporis,	1	—
Psoriasis,	1	—
Furunculosis,	—	1
Scabies,	3	—
Sycosis,	2	—
Exfoliative dermatitis,	1	1
Seborrhœic dermatitis,	2	—
GYNAECOLOGICAL.		
Salpyngitis,	—	4
Mammary abscess,	—	1
Phlegmasia alba dolens,	—	1
Amenorrhea,	—	1
Metrorrhagia,	—	1
Prolapse,	—	5
Placenta Praevia,	—	1
Caesarean section,	—	1
Ectopic gestation,	—	2
Retroversion,	—	6
Fibroid,	—	2
Myoma,	—	1
Parametritis,	—	1
Sterility,	—	2
Pelvic cellulitis,	—	1
Endometritis,	—	7
Perineal tear,	—	1
Streptothrix infection of uterus,	—	1
Vaginitis,	—	1
Cervical polypus,	—	1
Tubo-ovarian abscess,	—	1
Abortions,	—	7
Pregnancies,	—	36
AILING INFANTS.		
Rickets and orthopaedic conditions,	22	29
Marasmus,	14	6
Total,	177	230

The medical cases are tabulated as follows:—

MEDICAL CASES.

Disease.	M.	F.
PULMONARY—		
Pneumonia—		
Lobar,	81	29
Broncho,	50	26
Influenzal	3	4
Empyema,	9	3
Lung abscess,	3	—
Pulmonary embolism,	—	1
Bronchiectasis,	5	1
Pleurisy	1	2
Pleurisy with effusion,	3	3
Pulmonary fibrosis,	5	1
Mediastinal abscess,	1	—
Bronchitis,	15	14
Emphysema,	4	—
Influenza,	3	—
Asthma,	3	1
Neoplasm of lung,	1	—
Shrapnel in lung,	1	—
CARDIO-VASCULAR—		
Cerebral haemorrhage,	20	20
Cerebral thrombosis,	5	—
Aneurysm of aorta,	2	1
Aortitis,	1	1
Arterio-sclerosis,	9	—
Congenital heart disease,	1	—
Myocarditis (including senile),	25	16
Valv. dis. of heart,	16	11
Sub acute bacterial endocarditis,	1	—
Acute endocarditis,	1	—
Pericarditis,	1	—
Hyperpiesia,	1	1
RENAL—		
Nephritis, acute,	2	3
Nephritis, chronic parenchymatous,	3	3
Nephritis, chronic interstitial,	4	2
Cystic kidney	1	—
Nervous frequency of micturition,	—	1
Hypernephroma,	1	—
CENTRAL NERVOUS SYSTEM—		
Encephalitis lethargica,	2	2
Epilepsy,	3	2
Epilepsy, traumatic,	—	1
Poliomyelitis,	1	—
Paralysis agitans,	1	—
Postero-lateral sclerosis,	1	—
Chorea,	1	5
Disseminated sclerosis,	2	1
Cerebral diplegia,	—	1
CENTRAL NERVOUS SYSTEM—*continued.*		
Cerebral syphilis,	2	1
Locomotor ataxia,	4	1
General paralysis of insane,	3	1
Tabo-paresis,	3	2
Syringomyelia,	—	1
Alcoholic neuritis,	2	—
Peripheral neuritis,	2	—
Musculo-spiral paralysis,	1	—
Median and ulnar paralysis,	1	—
Sciatica,	2	2
Congenital idiocy,	3	1
Aphasia,	1	1
Amentia,	2	—
Dementia,	—	2
Acute mania,	—	1
Hysteria,	—	1
Delusional insanity,	3	3
Depressive psychosis,	4	3
Confusional insanity,	1	—
Neurasthenia,	12	1
Melancholia,	1	4
ABDOMINAL—		
Diabetes mellitus,	1	2
Hepatic cirrhosis,	—	1
Gastritis,	1	1
Gastritis, alcoholic,	3	1
Gastro-enteritis,	—	1
Gastric ulcer,	8	2
Duodenal ulcer,	6	—
BLOOD DISEASES.		
Anaemia, pernicious,	1	1
Anaemia, secondary,	—	7
Lymphadenoma,	1	—
Splenomedullary leukaemia,	—	1
Polycythaemia,	—	1
Toxic goitre,	—	1
Streptococcal septicaemia,	—	1
B. coli septicaemia,	1	—
ARTHRITIS.		
Rheumatoid,	2	14
Gonococcal,	2	—
Osteo arthritis,	2	4
Acute articular rheumatism,	6	9
Sub-acute articular rheumatism,	2	5
	376	233

TUBERCULOSIS.	M.	
Respiratory,	55	49
Non-respiratory,	44	51
	99	100

	M.	F.
Surgical and Orthopaedic cases,	221	281
Medical cases,	431	282
Grand total	652	563

TUBERCULOSIS.—During the year, 210 cases were admitted to hospital, consisting of 112 cases of respiratory tuberculosis and 98 cases of other forms of tuberculosis. There were 32 deaths.

ARTIFICIAL PNEUMOTHORAX.—Five cases were considered suitable for artificial pneumothorax. Of these, the treatment was discontinued in two cases; in the other three cases it was and is being continued with satisfactory results. The condition in these cases is very definitely better than it would have been without this treatment.

THORACOPLASTY.—The operation of thoracoplasty was performed in three cases —pulmonary tuberculosis, bronchiectasis, and encysted empyema.

ACUTE PNEUMONIAS.—The admissions to hospital are summarised in the following table:—

	Lobar Pneumonia.	Broncho Pneumonia.	Influenzal Pneumonia.	Total.
Admissions,	110	76	7	193
Deaths,	7	12	0	19
Death-rate per cent.	6·3	13·1	0	9·8

RHEUMATIC INFECTIONS.—A report on these and their treatment by *streptococcus cardio-arthriditis* serum will be included in the next Annual Report.

MATERNITY AND CHILD WELFARE SERVICES.—The cases under this heading are referred to in the section of this Report dealing with Maternity and Child Welfare (pp. 49 and 52).

OPERATIONS.—The operations performed during the year were as follows:—

Bone operations,	46
Genito-urinary,	34
Abdominal,	29
Gynecological,	34
Ear, nose, and throat,	49
Abscesses in different situations,	20
Dissection of neck glands,	10
Thoracoplasty,	3
Empyema,	14
Insertion of Radium for malignant disease,	3
Varicose veins, &c ,	8
	250

X-RAY DEPARTMENT.—A total of 761 cases attended the X-ray department, including 3 cases attending for deep X-ray therapy.

City Hospital Statistics.

The admissions to the City Hospital during 1928 are shown in Table XII. The total admissions amounted to 1,940, including 134 cases admitted from outside the City, as compared with an average of 1,619 during the 1918-1927 decennium. The admissions from outside the City included 45 cases of tuberculosis with 12 deaths; 23 cases of puerperal fever with 8 deaths; 14 marasmic babies (including 4 suffering from ophthalmia neonatorum) with 7 deaths; 10 cases of poliomyelitis; 6 cases of erysipelas with 1 death; 4 cases of measles; 3 cases of typhoid fever; 1 case of dysentery with 1 death; 1 case of scarlet fever; 1 of diphtheria; 1 of pneumonia; and 1 of whooping cough.

The daily number of patients under treatment varied from 156 to 282, the average daily number being 204.

Chicken-pox.—Six cases were admitted to hospital. No deaths.

Scarlet Fever.—The number of cases of scarlet fever admitted was 563, as compared with an annual average of 409 during the preceding decennium. There were 4 deaths, giving a case-mortality of 0·7 per cent., as against an average of 1·4 per cent. during the 1918-1927 decennium. An account of the work done in connection with Dick-testing and streptococcus toxin immunisation against scarlet fever is given in the section of this Report dealing with infectious diseases.

Diphtheria.—Of this disease, 454 cases were admitted during the year, as compared with an annual average of 392 during the preceding decennium. The deaths numbered 14, the case-mortality being 3·1 per cent., as compared with an average of 5·1 for the 1918-1927 decennium. An account of the work done in connection with Schick-testing and toxin-antitoxin immunisation against diphtheria is given in the section of this Report dealing with infectious diseases.

Measles.—Of this disease, 149 cases were admitted to hospital, including 79 to ailing infant ward. There were 18 deaths, including 9 in ailing infant ward, the case-mortality being 12·4 per cent. During the 1918-1927 decennium, the average annual number of cases admitted was 72, with 9 deaths, and a case-mortality of 12·3 per cent.

German Measles.—Five cases were admitted during the year. As would be expected, there were no deaths.

Whooping Cough.—The admissions during the year numbered 33, with 10 deaths, giving a case-mortality of 30·3 per cent. During the 1918-1927 decennium, the average annual number of cases admitted was 26, with 6 deaths, and a case-mortality of 23·1 per cent.

Acute Pneumonias.—During the year, 25 cases of acute primary and acute influenzal pneumonia were admitted for treatment, in addition to 197 cases admitted to Woodend Hospital. Of these 25 cases, 11 proved fatal.

TABLE XII.—ABERDEEN.—CITY HOSPITAL.—ANNUAL SUMMARY.

†ADMISSIONS AND DEATHS DURING EACH YEAR FROM 1918 TO 1928 INCLUSIVE.

DISEASE.		1928	1927	1926	1925	1924	1923	1922	1921	1920	1919	1918	1918-1927 Annual Average
Small Pox,	Admitted, ...	0	0	0	1	1	1	0	0	0	0	8	1·1
	Died, ...	0	0	0	0	0	0	0	0	0	0	0	0
Scarlet Fever, ...	Admitted, ...	563	617	789	625	186	238	272	538	375	247	204	409·1
	Died, ...	4	4	8	12	4	4	6	6	7	4	2	5·7
Diphtheria,	Admitted, ...	454	308	326	427	282	185	287	684	536	533	348	391·6
	Died, ...	14	15	21	21	11	8	14	35	28	29	19	20·1
Typhus Fever, ...	Admitted, ...	0	0	0	0	0	0	0	0	0	0	0	0
	Died, ...	0	0	0	0	0	0	0	0	0	0	0	0
Typhoid and Paratyphoid Fever,	Admitted, ...	13	7	2	42	10	23	9	6	7	22	104	23·2
	Died, ...	1	0	0	0	1	3	0	0	2	5	14	2·5
Acute Poliomyelitis,	Admitted, ...	11	3	2	5	3	0	7	4	3	1	1	2·9
	Died, ...	0	0	0	0	0	0	0	2	0	1	1	0·4
Cerebro-Spinal Meningitis	Admitted, ...	3	3	2	1	4	6	3	5	5	15	7	5·1
	Died, ...	2	3	2	0	3	3	2	3	1	11	7	3·5
Acute Pneumonias	Admitted, ...	25	248	144	118	69	24	52	24	44	2	...	...
	Died, ...	11	28	16	11	9	3	14	10	9	1	...	...
Erysipelas,	Admitted, ...	60	31	37	27	15	22	32	37	40	16	17	27·4
	Died, ...	7	1	4	2	3	0	4	3	4	1	2	2·4
Puerperal Pyrexia,	Admitted, ...	64	46	38	20	11	8	4	7	9	4	4	...
	Died, ...	13	7	8	7	3	3	1	2	3	1	2	...
Measles, ...	Admitted, ...	70	13	74	86	96	49	209	1	52	24	112	71·6
	Died, ...	9	0	8	9	11	11	39	0	6	0	4	8·8
Whooping Cough	Admitted, ...	33	20	20	48	91	0	32	5	6	21	18	26·1
	Died, ...	10	2	5	18	18	0	10	0	2	2	4	6·1
Tuberculosis	Admitted, ...	196	207	204	220	260	275	313	320	287	353	375	281·4
	Died, ...	40	51	36	52	47	47	50	42	47	76	78	52·6
‡Ailing Infant Wards	Admitted, ...	190	158	170	160	161	167	192	178	143	96	...	...
	Died, ...	30	25	24	51	44	50	70	75	76	61	...	...
Other Cases,	Admitted. ...	258	201	131	102	104	130	140	118	135	209	243	151·3
	Died, ...	30	15	13	11	17	12	13	13	12	30	71	20·7
Total Cases,	Admitted, ...	1940	1862	1939	1882	1293	1128	1552	1927	1642	1520	1441	1618·6
	Died, ...	171	151	145	194	171	144	223	191	197	219	204	183·9
Average Daily Number of Patients in Hospital, ...		204	248	260	255	189	180	198	264	255	231	222	230

† Including cases admitted from outside City. ‡ From 1917 to 1919, admissions to Ailing Infant Wards included in "Other Cases."

Tuberculosis.—During the year, 196 cases were admitted to hospital, as against an average of 281 during the 1918-1927 decennium. There were 40 deaths in 1928, as compared with an average of 53 during the preceding decennium.

Of the 196 cases admitted, all were cases of respiratory tuberculosis except 44. These cases of non-respiratory tuberculosis consisted of 9 cases of tuberculosis of bones and joints, 11 cases of tuberculous meningitis, 12 cases of abdominal tuberculosis, 5 cases of tuberculous glands, 4 cases of tuberculosis of spine, and 3 cases of generalised tuberculosis. Of the 152 respiratory cases, 69 were males and 83 females, and of the other cases, 27 were males and 17 females.

The cases of respiratory tuberculosis discharged from the City Hospital during the year numbered 142. As to the condition on discharge, 72 per cent. had improved in general health, 68 per cent. showed an increase in weight, 11 per cent. showed an improvement in the lung condition, some 40 per cent. were considered by the Tuberculosis Officer as fit for work or school, and in 53 per cent. of the cases the pulmonary condition was stationary.

As to the presence of tubercle bacilli in the sputum of cases admitted, 19 per cent. were positive; and 15 per cent. had bacilli in the sputum on discharge.

Meningococcic Meningitis.—There were 3 admissions, with 2 deaths, as compared with an annual average of 5 admissions and 4 deaths during the preceding ten years.

Acute Poliomyelitis.—Eleven cases were admitted during the year. There were no deaths.

Dysentery.—Fifty-three cases were admitted during the year. There were 2 deaths.

Typhoid and Paratyphoid Fever.—In 1928, 13 cases were admitted. There was 1 death. In the preceding decennium, the average annual number of cases admitted was 23, and the deaths 3.

Erysipelas.—Of this disease, 60 cases were admitted to hospital with 7 deaths, the average annual number of cases admitted during the 1918-1927 decennium being 27 with 2 deaths.

Puerperal Pyrexia.—In 1928, 64 cases were admitted, with 13 deaths.

Venereal Diseases.—During the year, 3 cases of syphilis and 15 cases of gonorrhœa were admitted for treatment.

Marasmus Wards.—There were 190 admissions, with 30 deaths.

Cleansing Block and Skin Department.—Full details of the verminous conditions among school children are to be found in the Annual Reports of the Chief Medical Officer of the Education Authority.

Table XIII. shows that during the year the number of verminous persons, whether members of families with children of school age or not, disinfested at the City Hospital Cleansing Department was 275. This table also shows that a total of 181 persons was treated for scabies in the skin wards of the Cleansing Department.

TABLE XIII.—ABERDEEN.—CLEANSING STATION.—YEAR 1928.

	AGE GROUPS (years).				ALL AGES.
	0–5	5–15	15–25	25 +	
Verminous Persons Cleansed,	34	93	55	93	275
Scabies Cases Treated,	30	70	22	59	181
TOTALS,	64	163	77	152	456

TUBERCULOSIS SERVICES.

Mortality.—During 1928 there were 113 deaths from respiratory tuberculosis, as against 105 in 1927, and 55 deaths from other forms of tuberculosis, being the same number as in the previous year.

Table XIV., as also the accompanying chart, shows the great fall in the tuberculosis death-rate during the past seventy years.

Notifications.—Table XV. (A) gives the number of tuberculosis cases notified during the year, divided into respiratory and non-respiratory cases, and arranged according to sex and age-period. During 1928, 150 cases of respiratory tuberculosis and 129 cases of non-respiratory tuberculosis were notified.

As regards the *Site of the Disease* in the 129 cases notified as suffering from tuberculosis other than respiratory, 24 were suffering from abdominal tuberculosis, 21 from tuberculous meningitis, 12 from tubercle of bones and joints (including the spine), 36 from tuberculous glands (mainly cervical), and 36 from generalised and other tuberculosis (including 18 of lupus).

There were 13 deaths of abdominal cases, 25 of meningitic cases, 3 of cases of bones and joints, and 14 of other cases.

As regards the number of cases notified during the year in which diagnosis of tuberculosis was confirmed by the Tuberculosis Medical Officer, Table XIV. (A) shows that the diagnosis was confirmed in 95 respiratory cases and 46 non-respiratory cases, or a total of 144 cases.

Table XV. (B) shows the number of persons belonging to Aberdeen at 31st December, 1928, who were known to be suffering from tuberculosis. The numbers are—1,092 respiratory cases and 478 non-respiratory cases, or a total of 1,570 persons

Table XIV.— Aberdeen.—Mortality from Tuberculosis in Years 1856-1928.*

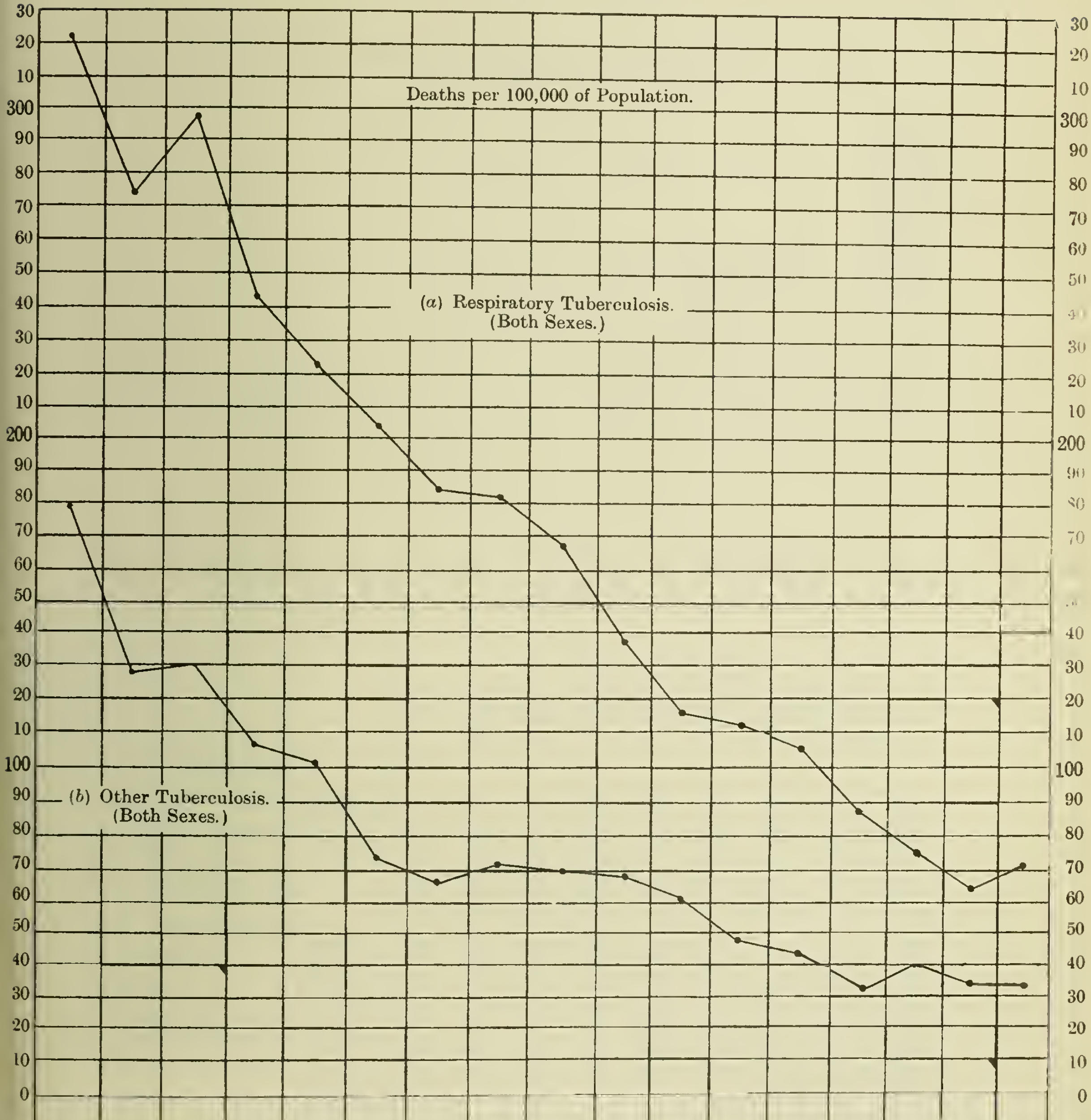
Per 100,000 of Population.

Period.	Respiratory Tuberculosis.			Other Tuberculous Diseases.			All Tuberculous Diseases.		
	Males.	Females.	Both Sexes.	Males.	Females.	Both Sexes.	Males.	Females.	Both Sexes.
1856-60 .	333	312	322	235	135	179	568	447	501
1861-65 .	267	279	274	158	103	128	425	382	402
1866-70 .	295	300	298	170	98	130	465	398	428
1871-75 .	234	250	243	129	89	107	363	339	350
1876-80 .	217	228	223	112	92	101	329	320	324
1881-85 .	189	216	204	90	62	74	279	278	278
1886-90 .	179	188	184	76	60	67	255	248	251
1891-95 .	179	183	181	83	62	72	262	245	253
1896-1900 .	166	168	167	77	64	70	243	232	237
1901-05 .	143	134	138	79	62	69	222	196	207
1906-10 .	119	113	116	74	51	61	193	164	178
1911-15 .	125	99	111	53	47	49	177	146	160
1916-20 .	104	107	106	49	39	43	153	146	149
1921-25 .	99	81	89	37	27	31	136	108	120
1921 . .	81	95	88	18	16	17	98	111	105
1922 - .	103	77	89	31	21	26	135	98	115
1923 . .	107	58	80	53	33	43	160	91	123
1924 . .	100	83	91	55	35	44	155	118	135
1925 . .	104	92	97	26	28	27	130	120	124
1926 . .	84	67	75	39	41	40	123	108	115
1927 . .	70	63	66	41	29	35	111	92	101
1928 . .	76	66	71	44	27	34	120	92	105

* Corrected for transferred deaths in 1904 and subsequent years.

Aberdeen—Tuberculosis, 1856-1928.—Quinquennial Periods.

All Ages. Both Sexes.



Yrs.	1856-60	61-65	66-70	71-75	76-80	81-85	86-90	91-95	96-1900	01-05	06-10	11-15	16-20	21-25	1926	1927	1928
(a) Respiratory Tuberculosis.	322	274	298	243	223	204	184	181	167	138	116	111	106	89	75	66	71
(b) Other Tuberculosis.	179	128	130	107	101	74	67	72	70	69	61	49	43	31	40	35	34

Deaths per 100,000 of Population.

(Corrected for transferred deaths in 1904 and subsequent years.)

TABLE XV.—ABERDEEN.—(A.) TUBERCULOSIS CASES NOTIFIED IN 1928.

		NUMBER OF CASES NOTIFIED AS SUFFERING FROM TUBERCULOSIS.									Number of cases notified during year in which diagnosis of Tuberculosis has been confirmed by M.O.H. (or T.O.).
		Under 5.	5 and under 10.	10 and under 15.	15 and under 25.	25 and under 35.	35 and under 45.	45 and under 65.	65 and upwards.	TOTAL.	
Respiratory	Males	2	8	3	14	15	12	17	4	75	52
	Females	2	3	3	27	14	12	12	2	75	43
Non-Respiratory	Males	25	14	2	10	7	1	2	1	62	25
	Females	18	14	5	16	4	3	7	0	67	21

(B.) NUMBER OF PERSONS BELONGING TO ABERDEEN AT 31ST DECEMBER, 1928, WHO WERE KNOWN TO BE SUFFERING FROM TUBERCULOSIS.

		NUMBER OF KNOWN CASES.								
		Under 5.	5 and under 10.	10 and under 15.	15 and under 25.	25 and under 35.	35 and under 45	45 and under 65.	65 and upwards.	Total.
RESPIRATORY.										
1. Tubercle Bacilli found	Males	...	4	...	31	39	46	35	1	156
	Females	...	...	2	40	34	21	10	1	108
2. Tubercle Bacilli not found	Males	14	18	57	110	75	63	56	10	403
	Females	8	29	26	104	97	67	81	13	425
Respiratory Total . .		22	51	85	285	245	197	182	25	1,092
NON-RESPIRATORY.										
1. Abdominal . .	Males	15	3	2	10	1	2	...	...	33
	Females	8	10	8	11	6	5	...	...	48
2. Spine . . .	Males	3	7	4	6	1	...	2	1	24
	Females	1	1	3	6	3	..	2	...	16
3. Bones and Joints (exclusive of Spine)	Males	10	8	4	14	5	5	...	...	46
	Females	2	3	2	14	6	2	...	...	49
4. Superficial Glands	Males	15	25	10	44	10	7	1	1	113
	Females	15	8	21	41	13	6	4	1	109
5. Lupus . . .	Males	2	2	3	5	6	...	2	2	22
	Females	2	...	..	4	2	8	5	3	24
6. Other Parts or Organs	Males	1	...		3	6	1	...	...	11
	Females	2	...	...	...	1	..	...	...	3
Non-Respiratory Total .		76	67	57	158	60	36	16	8	478
Respiratory and Non-Respiratory Total .		98	118	142	443	305	233	198	33	1,570

(C.) NUMBER OF CASES WHICH RECEIVED TREATMENT UNDER THE TUBERCULOSIS SCHEME IN SANATORIA OR OTHER INSTITUTIONS DURING THE YEAR ENDED 31ST DECEMBER, 1928.

		Number of Patients.				
		In Institutions on January 1.	Admitted during the year.	Discharged during the year.	Died in the Institutions.	In Institutions on December 31.
RESPIRATORY.						
*Adults . . .	Males	68	77	56	20	69
	Females	65	67	53	8	71
Children . .	Males	13	30	33	...	10
	Females	25	24	35	1	13
NON-RESPIRATORY.						
*Adults . . .	Males	13	17	7	4	19
	Females	5	18	8	4	11
Children . .	Males	16	27	23	8	12
	Females	8	17	11	2	12
Total . . .		213	277	226	47	217

* All patients of 5 years and upwards should be classed as Adults.

Institutional Treatment.—Table XV. (C) gives the number of notified and un-notified cases which received treatment under the Tuberculosis Scheme in sanatoria or other institutions during 1928. Of the 277 cases admitted, 198 were cases of respiratory tuberculosis and 79 were cases of non-respiratory tuberculosis. The number of notified cases admitted to each institution is given below.

TUBERCULOSIS CASES NOTIFIED AND RECEIVING INDOOR INSTITUTIONAL TREATMENT.

	1928.		
	Resp Tuberc.	Other Tuberc.	Total
City Hospital—Wards and Shelters, ...	82	22	104
Woodend Hospital—Wards and Shelters, . . .	70	25	95
Royal Infirmary, ...	1	5	6
Newhills Sanatorium, ...	1	0	1
Tor-na-Dee Sanatorium, ...	2	0	2
Nursing Home (Aberdeen), ...	0	1	1
Royal Mental Hospital, ...	2	0	2
Kingseat Mental Hospital, ...	2	0	2
Royal Hospital for Sick Children, ...	1	7	8
Linnmoor Home (for Children), ...	10	1	11
Institutions not connected with City:—			
A. In Scotland, ...	1	0	1
B. In England, ...	1	0	1
Total admissions, ...	173	61	234
Deduct cases treated in two institutions, ...	7	1	8
	166	60	226

The average stay of the tuberculosis cases discharged during the year from the hospitals and sanatoria giving indoor institutional treatment was, in respect of respiratory cases, 161 days for the City Hospital, 125 for Woodend Hospital, 27 for the Royal Infirmary, 22 for the Sick Children's Hospital, and 28 for Linnmoor Home. As regards the cases of other forms of tuberculosis, the average stay was 231 days for the City Hospital, 141 for Woodend Hospital, 30 for the Royal Infirmary, 76 for the Sick Children's Hospital, and 30 for Linnmoor Home.

As to outdoor institutional treatment, 566 cases, all of which were of respiratory tuberculosis, except 61, received treatment at the Tuberculosis Institute at the City Hospital.

Insured Persons (National Insurance Act).—Of the 150 cases of respiratory tuberculosis notified, 69 were insured persons, 40 being male and 29 being female. The notified cases of other forms of tuberculosis included 21 insured persons, 8 of whom were males and 13 females.

As stated in previous Reports, the Town Council have now assumed full financial responsibility for the treatment of insured tuberculous patients. During the year, the number of prescriptions passed for payment amounted to 1,808.

Food Supply.—During 1928, food, chiefly milk, was supplied to an average daily total of 17 patients receiving dispensary or domiciliary treatment.

Supervision of Cases.—The Tuberculosis Medical Officer had the assistance of three Tuberculosis Health Visitors or Nurses in the visitation and supervision of tuberculosis cases throughout the year.

Size of House and Density of Occupancy.—Table XVI., on page 32, gives the number of cases occurring in houses of different sizes, along with the average number of inmates. In the case of respiratory tuberculosis, the average number of inmates, including the patient, varied from 3·8 in one-roomed houses to 6·0 in four-roomed houses. The average for houses of all sizes taken together was 5·0.

In the cases of other forms of tuberculosis, the average ran from 4·1 for one-roomed houses to 5·9 for three-roomed houses. The average for all houses was 5·3.

As regards the position of tuberculous cases in relation to room and bed accommodation at the time of notification, it was found that of the 150 cases of respiratory tuberculosis, only 58, or 39 per cent., were occupying a separate bed in a separate room, and 19, or 13 per cent., had a separate bed but not a separate room. About one-half had neither a separate bed nor a separate room.

Assistance in Payment of Rent.—In December, 1916, the Town Council voted £100 out of the Common Good for the purpose of assisting necessitous tuberculous patients to secure improved housing accommodation while suffering from tuberculosis. During 1928, one tuberculous patient received such assistance.

Loan of Beds.—In order to facilitate the separation of the patient from the other members of the household, 23 beds or cots, with the necessary bedding, were given on loan to needful patients. On the last day of the year, there were on loan 69 beds with bedding, as against 91 at the end of 1927. In addition, at the end of 1928, there were 4 sets of bedding on loan, as against 6 at the end of 1927. The loaned beds and bedding continue to be well cared for, and are nearly always returned in good and clean condition, subject to the unavoidable effects of ordinary use.

Table XVI.—Aberdeen.—Tuberculosis.—Size of House in relation to Notified Cases and Registered Deaths during 1928.

		1 Room.	2 Rooms.	3 Rooms.	4 Rooms.	5 Rooms and up.	Institutional or not stated.	Totals for 1928.	Corresponding Totals for	
									1927.	1926.
Respiratory Tuberculosis (Cases),	Male,	12	21	24	7	7	4	75	82	111
	Female,	10	18	28	9	6	4	75	102	108
Both Sexes,	Cases,	22	39	52	16	13	8	150	184	219
	Deaths,	9	27	40	16	9	12	113	105	119
Average Number of Inmates, including Patient,		3·8	4·9	5·3	6·0	4·8	...	5·0	4·6	5·3
Other Tuberculosis (Cases)	Male,	14	23	15	1	6	3	62	80	65
	Female,	9	29	21	4	2	2	67	55	72
Both Sexes,	Cases,	23	52	36	5	8	5	129	135	137
	Deaths,	10	19	12	7	2	5	55	55	63
Average Number of Inmates, including Patient,		4·1	5·2	5·9	5·6	4·8	...	5·3	5·6	5·2
*Houses in City at Census, 1921 Average Number of Inmates,		2·2	3·9	4·7	4·7	4·8	...	4·2	...	...

* Houses of 25 rooms and over are excluded.

VENEREAL DISEASES SERVICES.

Attendances for Treatment.

During the year, a total of 483 new City cases attended for treatment at the Royal Infirmary, as compared with 498 in 1927. In all, 46 City cases were admitted for in-patient treatment in 1928, as compared with 60 in 1927. The total number of attendances of all City cases during the year was 25,854, as compared with a total of 26,544 in 1927.

Ophthalmia Neonatorum.

A total of 51 cases was reported during 1928, as compared with an annual average of 69 during the preceding ten years.

Venereal Disease Statistics.

The statistical data (see pp. 33-34) of the incidence and treatment of venereal diseases, as measured under the Joint Scheme, are submitted for the year under review. The statistical data relating to work done in connection with venereal diseases at the City Hospital Sub-Centre are also submitted.

TABLE XVII.—CHIEF TREATMENT CENTRE AT ABERDEEN ROYAL INFIRMARY.

TOTAL NUMBER OF NEW CASES.

Year.	Whole Joint Scheme.											Aberdeen City Cases only.										
	Total.	Syphilis.		Gonorrhoea.		Soft Ch.		Mixed Infs.		Not V.D.		Total.	Syphilis.		Gonorrhoea.		Soft Ch.		Mixed Infs.		Not V.D.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1928	**680**	**96**	**73**	**312**	**55**	**8**	**0**	**9**	**1**	**82**	**44**	**483**	**66**	**49**	**221**	**41**	**2**	**0**	**6**	**1**	**65**	**32**
1927	706	125	69	313	46	8	0	3	2	83	57	498	73	49	237	36	3	0	1	1	55	43
1926	591	97	79	258	32	4	0	5	1	71	44	408	57	52	192	23	1	0	2	1	48	32
1925	632	85	61	299	52	3	0	5	2	83	42	434	44	35	237	38	3	0	1	2	48	26
1924	637	101	81	249	46	4	0	22	8	86	40	474	68	62	192	36	1	0	15	3	60	37
1923	626	109	100	235	41	6	0	24	9	58	44	460	64	83	183	29	2	0	13	5	48	33
Average— 1923-1927 (5 years)	638	103	78	272	43	5	0	12	4	76	45	454	61	56	209	32	2	0	6	2	52	34

IN-PATIENT CASES.

Year.	Whole Joint Scheme.											Aberdeen City Cases only.										
	Total.	Syphilis.		Gonorrhoea.		Soft Ch.		Mixed Infs.		Not V.D.		Total.	Syphilis.		Gonorrhoea.		Soft Ch.		Mixed Infs.		Not V.D.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1928	**94**	**21**	**18**	**27**	**20**	**0**	**0**	**2**	**4**	**0**	**2**	**46**	**11**	**9**	**8**	**13**	**0**	**0**	**1**	**4**	**0**	**0**
1927	106	25	18	34	18	2	0	2	4	3	0	60	11	10	23	11	0	0	1	3	1	0
1926	78	14	15	26	14	0	0	1	6	2	0	35	3	7	13	8	0	0	0	4	0	0
1925	84	17	13	29	15	0	0	2	7	1	0	42	6	4	17	10	0	0	0	5	0	0
1924	69	14	8	21	12	0	0	5	9	0	0	28	7	3	9	4	0	0	4	1	0	0
1923	63	16	6	13	12	2	0	5	7	0	2	22	5	3	6	4	1	0	1	1	0	1
Average— 1923-1927 (5 years)	80	17	12	25	14	1	0	3	7	1	0·4	36	6	5	14	7	0·2	0	1	3	0·2	0·2

ATTENDANCES OF ALL CASES.

Year.	Whole Joint Scheme.											Aberdeen City Cases only.										
	Total.	Syphilis.		Gonorrhoea.		Soft Ch.		Mixed Infs.		Not V.D.		Total.	Syphilis.		Gonorrhoea.		Soft Ch.		Mixed Infs.		Not V.D.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1928	**30,075**	**4,705**	**4,599**	**14,225**	**4,726**	**17**	**0**	**1,053**	**611**	**64**	**75**	**25,854**	**3,401**	**3,467**	**12,895**	**4,443**	**6**	**0**	**976**	**560**	**48**	**58**
1927	31,086	5,351	5,171	14,452	3,654	29	0	1,542	693	118	76	26,544	3,907	3,924	13,038	3,506	14	0	1,375	632	81	67
1926	27,251	3,712	4,296	12,766	3,412	7	0	1,721	1,171	83	83	24,049	2,988	3,541	11,448	3,282	2	0	1,543	1,119	55	71
1925	29,744	3,432	3,773	14,867	4,171	16	0	2,072	1,167	140	106	25,919	2,709	3,112	13,135	3,962	16	0	1,815	1,000	83	87
1924	26,843	3,628	3,829	13,400	3,448	32	1	1,396	881	112	116	23,861	2,875	3,344	12,241	3,242	6	1	1,233	755	85	79
1923	24,157	3,959	3,892	10,485	3,607	18	8	858	1,128	117	85	21,286	3,191	3,346	9,706	3,225	10	1	709	965	75	58
Average— 1923-1927 (5 years)	27,816	4,017	4,192	13,194	3,658	20	2	1,518	1,008	114	93	24,332	3,134	3,453	11,914	3,443	10	1	1,335	894	76	72

LABORATORY EXAMINATIONS.

(a) Total Number

YEAR.	WHOLE JOINT SCHEME.							ABERDEEN CITY CASES ONLY						
	TOTAL.	Syphilis.				Gonorrhoea.		TOTAL.	Syphilis.				Gonorrhoca.	
		Wassermann.		Spirochete.		Gonococcus.			Wassermann.		Spirochete.		Gonococcus.	
		Pos.	Neg.	Pos.	Neg.	Pos.	Neg.		Pos.	Neg.	Pos.	Neg.	Pos.	Neg
1928	**8,983**	**1,720**	**4,424**	**26**	**76**	**451**	**2,286**	**7,103**	**1,262**	**3,698**	**21**	**65**	**364**	**1,693**
1927	9,161	1,883	4,550	20	54	416	2,238	7,295	1,378	3,805	15	49	323	1,725
1926	9,708	1,848	4,534	11	69	380	2,866	7,973	1,444	3,834	10	67	315	2,303
1925	7,811	1,470	3,564	9	114	465	2,189	6,366	1,125	2,900	6	105	396	1,834
1924	7,426	1,408	3,383	13	91	415	2,116	5,971	1,069	2,770	11	82	341	1,698
1923	7,164	1,459	3,163	41	117	514	1,870	5,635	1,115	2,518	27	105	407	1,463
Average— 1923-1927 (5 years)	8,254	1,613	3,839	19	89	438	2,256	6,648	1,226	3,165	14	82	356	1,805

(b) Included in the foregoing Table (a) are the following number of specimens sent by private practitioners.

YEAR.	WHOLE JOINT SCHEME.							ABERDEEN CITY CASES ONLY.						
	TOTAL.	Syphilis.				Gonorrhoea.		TOTAL.	Syphilis.				Gonorrhoea.	
		Wassermann.		Spirochete.		Gonococcus.			Wassermann.		Spirochete.		Gonococcus.	
		Pos.	Neg.	Pos.	Neg.	Pos.	Neg.		Pos.	Neg.	Pos.	Neg.	Pos.	Neg.
1928	**547**	**86**	**293**	**2**	**7**	**42**	**117**	**357**	**44**	**166**	**2**	**7**	**39**	**99**
1927	549	77	307	1	3	45	116	338	33	167	1	3	34	100
1926	641	145	333	2	8	54	99	379	71	170	2	7	44	85
1925	631	121	283	1	9	50	167	413	60	146	1	9	45	152
1924	702	155	261	3	6	58	219	478	82	152	3	6	48	187
1923	749	119	321	1	15	80	213	519	62	196	1	15	69	176
Average— 1923-1927 (5 years)	654	123	301	2	8	57	163	425	61	166	2	8	48	140

(c) Included in Table (a) are also the undernoted numbers of bodies of infants, mostly still-born (all from City) examined for Syphilis.

YEAR.	Number of Bodies Examined.	Number found to contain the Spirochete of Syphilis
1928	**25**	**1**
1927	26	1
1926	25	2
1925	69	3
1924	65	3
1923	65	7
Average—1923-1927 (5 years) . .	50	3

TABLE XVIII.—SUB-CENTRE AT ABERDEEN CITY FEVER HOSPITAL FOR TREATMENT OF CERTAIN CITY CASES.

TOTAL NUMBER OF NEW CASES.

YEAR.	TOTAL.	Syphilis.		Gonorrhœa.		Soft Ch.		Mixed Infs.		Not V.D.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1928	**230**	**36**	**32**	**74**	**38**	**6**	**0**	**0**	**0**	**23**	**21**
1927	166	22	18	65	26	3	0	1	3	8	20
1926	146	18	22	37	25	0	0	2	4	20	18
1925	106	12	20	38	28	0	0	1	1	4	2
1924	56	6	11	16	18	0	0	1	2	0	2
1923	8	3	4	1	0	0	0	0	0	0	0
Aver.—1923-27 (5 yrs.).	95	12	15	31	19	1	0	1	2	6	8

IN-PATIENT CASES.

YEAR.	TOTAL.	Syphilis.		Gonorrhœa.		Soft Ch.		Mixed Infs.		Not V.D.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1928	**21**	**1**	**2**	**10**	**5**	**0**	**0**	**0**	**0**	**3**	**0**
1927	25	6	7	9	1	0	0	0	1	0	1
1926	22	4	6	5	2	0	0	0	3	1	1
1925	19	5	5	3	3	0	0	1	0	1	1
1924	14	2	3	4	5	0	0	0	0	0	0
1923	5	2	2	1	0	0	0	0	0	0	0
Aver.—1923-27 (5 yrs.).	17	4	5	4	2	0	0	0·2	1	0·4	1

ATTENDANCES.

YEAR	TOTAL	Syphilis.		Gonorrhœa.		Soft Ch.		Mixed Infs.		Not V.D.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
1928	**8,406**	**521**	**568**	**4,584**	**2,282**	**12**	**0**	**55**	**131**	**90**	**163**
1927	6,438	371	385	3,456	1,737	23	0	169	86	15	196
1926	6,712	225	352	2,808	2.294	0	0	261	247	71	454
1925	4,189	98	207	1,803	2,053	0	0	17	4	5	2
1924	1,144	59	81	362	556	0	0	1	82	0	3
1923	131	98	27	3	3	0	0	0	0	0	0
Aver.—1923-27 (5 yrs,).	3,723	170	210	1,686	1,329	5	0	90	84	18	131

LABORATORY EXAMINATIONS.

YEAR.	TOTAL.	SYPHILIS.				GONORRHŒA.	
		Wassermann.		Spirochete.		Gonococcus.	
		Positive.	Negative.	Positive.	Negative.	Positive.	Negative.
1928	**3.166**	**320**	**1,083**	**1**	**9**	**221**	**1,532**
1927	2,524	240	790	2	15	181	1,296
1926	2,317	168	588	3	1	147	1,410
1925	1.561	92	340	1	2	140	986
1924	733	79	256	0	2	70	326
1923	194	52	117	2	2	8	13
Average—1923-1927 (5 years)	1,465	126	418	2	4	109	806

BLIND PERSONS SERVICES.

During the year 1928, there were 3 persons who applied for and received from the Town Council assistance towards their maintenance during the period of technical training. At the end of December, 1928, 21 persons in all were receiving such assistance.

MATERNITY AND CHILD WELFARE SERVICES.

Infantile Mortality.

During the year 1928, there were 313 deaths among children under one year of age, as compared with an average of 368 during the 1923-1927 quinquennium. The infant-mortality rate, expressed as deaths per 1,000 births, was 94 during 1928, as against an average of 107 during the preceding quinquennium. This is the lowest infant-mortality rate yet recorded, the next lowest being a mortality rate of 96 for the year 1926.

The chief causes of mortality among infants in 1928, as appearing in Table XIX., were prematurity, with 58 deaths, as against an average of 82 for the preceding quinquennium; bronchitis and pneumonia, 56 deaths, as against 68; and atrophy and debility, 53 deaths, as against 61.

During the spring months there was an epidemic of measles and whooping cough. There were 20 deaths from measles, as against an average of 11 for the preceding quinquennium, and 15 deaths from whooping cough, as against an average of 13.

Table XX. shows the death-rates among children under one year of age, in terms of (*a*) legitimate deaths per 1,000 legitimate births, (*b*) illegitimate deaths per 1,000 illegitimate births, and (*c*) total deaths per 1,000 births.

In Table XXI. the causes of death are somewhat differently grouped from those in Table XIX., and death-rates are substituted for numbers of deaths.

In Table XXI. also, two interesting columns show the number of infants surviving at the end of one year from birth, and the proportion which the survivors bear to the population. This rate, which represents the net gain to the population, after the perils peculiar to the first year of life have been passed, was, in 1928, 18·8 per 1,000 of population, as compared with an average of 20·2 for the ten years 1918-1927. This rate is a more exact indication than the birth-rate of the real internal addition to the population.

Births.

The figures of the births registered in Aberdeen during 1928 are analysed in detail in Chapter IV. of this Report.

Table XIX.—Aberdeen.—Causes of Death among Children under Five Years of Age.—*Year* 1928.

CAUSES OF DEATH.	AGE.																	Average for Preceding 5 Years. (1923-27.)	
	First Year.												Second to Fifth Years.				Total		
	First Four Weeks.				First Three Months.			The Four Quarters.				Total							
	0—	—2	—3	—4	0—1	—2	—3	0—3	—6	—9	—12	0—1	—2	—3	—4	—5	1—5	0—1	1—5
Chicken-pox	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	0·2
Measles	...	...	...	...	...	1	...	1	2	6	11	20	24	3	2	...	29	11	17
Scarlet Fever	...	...	...	...	...	...	...	...	...	...	...	...	1	1	2	...	4	...	3
Whooping Cough	...	...	...	...	...	1	2	3	5	4	3	15	15	5	...	...	20	13	18
Diphtheria	...	...	...	...	...	...	...	...	...	...	1	1	1	1	1	4	7	2	7
Erysipelas	...	...	...	...	1	...	...	1	...	1	1	3	...	1	...	...	1	1	0·4
Epidemic Cerebro-Spinal Meningitis	...	...	...	...	...	...	...	...	2	...	...	2	1	...	...	...	1	1	1
Tuberculosis of (a) Brain	...	...	...	...	...	1	...	1	2	...	1	4	5	5	1	1	12	6	17
(b) Abdomen	...	...	...	...	...	...	...	...	...	1	...	1	4	2	1	...	7	2	5
(c) Lungs	...	...	...	...	...	...	...	...	...	...	...	...	1	...	1	...	2	1	1
(d) Other forms	...	...	...	...	...	...	...	...	...	2	...	2	...	1	...	1	2	2	3
Meningitis	...	...	...	1	1	...	...	1	1	2	1	5	...	...	...	...	...	5	3
Hydrocephalus	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Convulsions	2	1	1	...	4	3	2	9	1	...	3	13	...	...	...	...	...	24	4
Pneumonia	...	1	...	1	3	2	5	10	13	10	11	44	16	3	2	1	22	43	24
Bronchitis	...	2	...	1	3	2	1	6	3	2	1	12	4	...	1	...	5	25	5
Diarrhoea and Enteritis	...	...	...	...	...	3	4	7	10	5	3	25	3	1	...	2	6	25	4
Other Digestive Diseases	...	...	1	1	2	...	1	3	1	...	1	5	1	1	1	1	4	11	4
Congenital Malformations	1	3	...	...	4	2	...	6	...	...	...	6	1	1	1	...	3	7	1
Congenital Heart	2	...	...	...	2	...	1	3	...	...	1	4	...	...	...	...	...	5	0·2
Prematurity	34	7	8	2	52	3	1	56	2	...	...	58	...	...	...	...	...	82	...
Atrophy, Debility, and Marasmus	12	5	4	4	26	7	7	40	9	4	1	54	1	...	...	...	1	61	1
Atelectasis	7	1	.	..	8	...	...	8	...	...	...	8	...	...	...	...	...	10	...
Injury at Birth	8	...	...	...	8	...	...	8	...	...	...	8	...	...	...	...	...	7	...
Syphilis	...	...	...	...	...	...	1	1	...	...	...	1	...	...	...	...	...	7	0·2
Burns and Scalds	...	...	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	1	10
Suffocation	4	..	...	...	4	...	...	4	1	...	...	5	...	...	...	...	...	3	...
Other Accidents	...	1	...	...	1	...	...	1	...	...	...	1	...	2	2	2	6	...	4
Other Causes	5	4	1	...	10	2	1	13	...	1	2	16	5	...	3	2	10	13	9
All Causes	75	25	15	10	129	27	26	182	52	38	41	313	83	27	18	14	142	368	142
Average for preceding 5 years	92	20	17	14	146	30	29	205	78	47	38	368	79	33	16	14	142		

TABLE XX.—ABERDEEN.—DEATH RATES AMONG CHILDREN UNDER ONE YEAR OF AGE. *Year* 1928.

(a) Legitimate Deaths per 1,000 Legitimate Births ; (b) Illegitimate Deaths per 1,000 Illegitimate Births ; (c) Total Deaths per 1,000 Births.

Causes of Death.	FIRST FOUR WEEKS.												FIRST THREE MONTHS.									THE FOUR QUARTERS.												Total.		
	0—1			—2			—3			—4			*0—1			—2			—3			*I.			II.			III.			IV.					
	Legit.	Illegit.	Both.	Legit.	Illegit.	Both.	Legit.	Illegit.	Both.	Legit.	Illegit.	Both.	Legit.	Illegit.	Both.	Legit.	Illegit.	Both.	Legit.	Illegit.	Both.	Legit.	Illegit.	Both.	Legit.	Illegit.	Both.	Legit.	Illegit.	Both.	Legit.	Illegit.	Both.	Legit.	Illegit.	Both.
Chicken-pox,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0·3	..	0·3	..	..	..	0·3	..	0·3	0·3	3·4	0·6	2·0	..	1·8	3·6	..	3·3	6·2	3·4	6·0
Scarlet Fever,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Whooping Cough,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0·3	..	0·3	0·7	..	0·6	1·0	..	0·9	1·7	..	1·5	1·3	..	1·2	1·0	..	0·9	5·0	..	4·5
Diphtheria,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0·3	..	0·3	0·3	..	0·3
Erysipelas,	..	..	..	..	..	..	..	..	..	..	..	..	..	3·4	0·3	..	..	..	..	..	..	..	3·4	0·3	..	..	..	0·3	..	0·3	0·3	..	0·3	0·7	3·4	0·9
Ep. Cerebro-Sp. Meningitis,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0·3	3·4	0·6	..	..	..	..	..	..	0·3	3·4	0·6
Tuberculosis of (a) Brain,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0·3	..	0·3	..	..	..	0·3	..	0·3	0·3	3·4	0·6	..	..	..	0·3	..	0·3	1·0	3·4	1·2
Tuberculosis of (b) Abdomen,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0·3	..	0·3	..	..	..	0·3	..	0·3
Tuberculosis of (c) Lungs,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Tuberculosis of (d) Other Forms	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	0·7	..	0·6	..	..	..	0·7	..	0·6
Meningitis,	..	..	..	..	..	..	..	..	..	0·3	..	0·3	0·3	..	0·3	..	..	..	..	..	..	0·3	..	0·3	0·3	..	0·3	0·3	3·4	0·6	0·3	..	0·3	1·3	3·4	1·5
Hydrocephalus,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Convulsions,	0·7	..	0·6	0·3	..	0·3	0·3	..	0·3	..	..	..	1·3	..	1·2	0·7	3·4	0·9	0·3	3 4	0·6	2·3	6·8	2·7	0·3	..	0·3	..	..	..	1·0	..	0·9	3·6	6·8	3·9
Pneumonia,	..	..	..	0·3	..	0·3	..	..	..	0·3	..	0·3	1·0	..	0·9	0·7	..	0·6	1·0	6·8	1·5	2·7	6·8	3·0	3·3	10·2	3·9	3·3	..	3·0	3·6	..	3·3	12·9	17·0	13·2
Bronchitis,	..	..	..	0·7	..	0·6	..	..	..	0·3	..	0·3	1·0	..	0·9	0·3	3·4	0·6	0·3	..	0·3	1·7	3·4	1·8	1·0	..	0·9	0·7	..	0·6	0·3	..	0·3	3·7	3·4	3·6
Diarrhoea and Enteritis,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1·0	..	0·9	1·3	..	1·2	2·3	..	2·1	3·3	..	3·0	1·3	3·4	1·5	1·0	..	0·9	7·9	3·4	7·5
Other Digestive Diseases,	..	..	..	..	..	..	0·3	..	0·3	..	3·4	0·3	0·3	3·4	0·6	..	..	..	0·3	..	0·3	0·6	3·4	0·9	0·3	..	0·3	..	..	..	0·3	..	0·3	1·3	3·4	1·5
Congenital Malformations,	0·3	..	0·3	1·0	..	0·9	..	..	..	..	..	..	1·3	..	1·2	0·3	3·4	0·6	..	..	..	1·7	3·4	1·8	..	..	..	..	..	..	..	..	..	1·7	3·4	1·8
Congenital Heart,	0·7	..	0·6	..	..	..	..	..	..	..	..	..	0·7	..	0·6	..	..	..	0·3	..	0·3	1·0	..	0·9	..	..	..	..	..	..	0·3	..	0·3	1·3	..	1·2
Prematurity,	8·9	23·9	10·3	2·3	..	2·1	1·3	13·7	2·4	0·7	..	0·6	13·6	37·5	15·7	0·7	3·4	0·9	0·3	..	0·3	14·6	40·9	16·9	0·7	..	0·6	..	..	..	..	..	..	15·3	41·0	17·5
Atrophy, Debility, & Marasmus	3·9	..	3·6	1·7	..	1·5	1·3	..	1·2	1·0	3·4	1·2	7·9	6·8	7·8	1·6	6·8	2·1	1·7	6·8	2·1	11·2	20·4	12·0	2·3	6·8	2·7	1·0	3·4	1·2	0·3	..	0·3	14·8	30·7	16·2
Atelectasis,	2·3	..	2·1	0·3	..	0·3	..	..	..	..	..	..	2·6	..	2·4	..	..	..	..	..	..	2·7	..	2·4	..	..	..	..	..	..	..	..	..	2·7	..	2·4
Injury at Birth,	2·3	3·4	2·4	..	..	..	..	..	..	..	..	..	2·3	3·4	2·4	..	..	..	..	..	..	2·3	3·4	2·4	..	..	..	..	..	..	..	..	..	2·3	3·4	2·4
Syphilis,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3·4	0·3	..	3·4	0·3	..	..	..	..	..	..	..	..	..	..	3·4	0·3
Burns and Scalds,	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Suffocation,	0·7	6·8	1·2	..	..	..	..	..	..	..	..	..	0·7	6·8	1·2	..	..	..	..	..	..	0·7	6·8	1·2	0·3	..	0·3	..	..	..	..	..	..	1·0	6·8	1·5
Other Accidents,	..	..	..	0·3	..	0·3	..	..	..	..	..	..	0·3	..	0·3	..	..	..	..	..	..	0·3	..	0·3	..	..	..	..	..	..	..	..	..	0·3	..	0·3
Other Causes,	0·7	10·2	1·5	1·0	3·4	1·2	..	3·4	0·3	..	..	..	1·7	17·1	3·0	0·7	..	0·6	0·3	..	0·3	2·7	17·1	3·9	..	..	..	0·3	..	0·3	0·3	3·4	0·6	3·3	20·5	4·8
All Causes,	**20·5**	**44·3**	**22·6**	**7·9**	**3·4**	**7·5**	**3·3**	**17·1**	**4·5**	**2·6**	**6·8**	**3·0**	**35·0**	**78·4**	**38·8**	**6·9**	**20·4**	**8·1**	**6·6**	**20·4**	**7·8**	**48·7**	**119·2**	**54·7**	**14·5**	**27·3**	**15·6**	**11·5**	**10·2**	**11·4**	**13·2**	**3·4**	**12·3**	**87·9**	**160·2**	**94·0**

* This column includes all Death-rates in preceding columns.

Table XXI.—Aberdeen.—Infant Mortality.—*Years* 1918-1928.

(*Corrected for transferred deaths.*)

YEAR.	No. of Births.	Births per 1,000 of Population.	Deaths of Infants under 1 year.	Deaths of Infants under 1 year per 1,000 Births.	No. of Survivors.	Survivors per 1,000 of Population.	Death-Rates among Children under 1 Year of Age from Chief Causes per 1,000 Births.										Death-Rates from All Causes, per 1,000 Births, at Ages		
							Prematurity, Congenital Defects, and Dis of Early Infancy.	Dis. of Digest. System, Wasting and Debility, Convulsions.	Bronchitis and Pneumonia.	Common Zymotic Diseases.				Tuberculosis.	Syphilis.	Suffocation.	Under 2 Weeks.	Above 2 Weeks and under 6 Months	Above 6 Months and under 1 Year.
										Measles.	Whooping Cough.	Diphtheria.	Scarlet Fever.						
1928 . .	3314	20·7	313	94	2999	18·8	27	29	17	6	5	0·3	0	2	0·3	2	30	40	24
1927 . .	3182	20·0	334	105	2848	17·9	38	29	25	0·3	2	0	0	3	2	1	40	45	20
1926 . .	3406	21·5	328	96	3078	19·4	30	31	17	2	3	1	0	4	1	1	27	44	25
1925 . .	3390	21·4	368	109	3022	19·1	34	37	18	4	6	1	0	3	1	0·3	31	53	25
1924 . .	3437	21·8	421	122	3016	19·1	33	36	22	6	8	1	0	3	2	2	33	57	32
1923 . .	3766	23·6	391	104	3375	21·2	30	42	18	3	1	0	0	3	3	1	33	51	20
Average 1923-1927	3436	21·7	368	107	3068	19·3	33	35	20	3	4	1	0	3	2	1	33	50	24
1922 . .	3969	24·8	527	133	3442	21·5	31	37	28	10	12	0·3	0	2	4	1	32	63	38
1921 . .	4254	26·6	460	108	3794	23·7	30	42	22	1	4	1	0	1	2	1	31	60	18
1920 . .	4868	30·3	591	121	4277	26·7	33	42	25	3	4	0·2	0·2	1	4	1	31	69	21
1919 . .	3379	21·0	399	118	2980	18·5	40	37	21	0·3	4	1	0	2	4	2	39	54	25
1918 . .	2721	16·8	390	143	2331	14·4	33	54	26	4	7	1	0	3	3	1	29	78	36
Average 1918-1922	3838	23·9	473	125	3365	21·0	33	42	24	4	6	1	0·04	2	3	1	32	65	28
Average 1918-1927 (ten years)	3637	22·8	421	116	3216	20·2	33	39	22	3	5	1	0·02	3	3	1	33	57	26

The number of births registered in Aberdeen during the year was 3,448 (3,092 legitimate and 356 illegitimate).

The particulars regarding the live-births and still-births occurring during the year are as follows:—

Attended by	No. of Live Births.	No. of Still Births.	No. of Still Births per 1,000 Live Births.
Midwives,	652	22	34
Maternity Hospital—			
(*a*) In Wards,	603	50	83
(*b*) At Home,	194	8	41
Medical Practitioners,	1,972	51	26
Not attended,	2	—	—
TOTAL,	3,423	131	38

The bodies of 25 still-born children or children who had died soon after birth were examined for spirochetes, which were found in one case, giving a percentage of 4·0. Arrangements were made to have the mother of the child in which spirochetes were found treated at a Venereal Centre.

MATERNITY MORTALITY.

An important report on Maternal Mortality in Aberdeen, 1918-1927, with special reference to puerperal sepsis was published in 1928 as an official document by the Scottish Board of Health (H.M. Stationery Office), and should be consulted for full details of the ascertained causes of maternal mortality.

The conclusions as summarised in the report are as follows:—

1. The analysis of the records of maternal deaths in Aberdeen over a period of ten years, as obtained by means of a special system of inquiry, has not revealed any definite relationship between environmental conditions and puerperal mortality. Thus, in turn, puerperal mortality in relation to cleanliness of house, size of house, crowdedness of house, and to congested areas, have been examined, and no significant association of any of them with puerperal mortality has been ascertained.

2. Similarly, the influence on maternal mortality of more personal factors, such as age of the mother, illegitimacy, occupation of the mother, habits of the mother, health of the mother before and during pregnancy, still-births and syphilis, and sequence of pregnancies have all been examined, with results that confirm generally existing views as to the influence of these various factors on maternal mortality.

3. The comparative maternal death-rates from all causes and for the separate causes of death in the practices of doctor, midwife, district, and institution have been analysed, the factor of selection being eliminated by transferring the cases back to the original doctor or midwife in charge of the case, and it has been found that the death-rate per 1,000 maternity cases is 2·8 in the practice of midwives, 6·9 in the practice of doctors, and 14·9 in in-patient institutional practice.

4. The evidence indicates that, in so far as midwife cases are concerned, the application of midwifery forceps has no prejudicial effect on the mother.

5. Statistical evidence has been obtained of the reduction in maternal mortality which accrues from the provision of ante-natal services.

6. There is reason to believe that the high incidence of puerperal sepsis in maternity institutions in Aberdeen is due to contagion.

7. The view is advanced that the higher incidence of puerperal sepsis in the practice of doctors as contrasted with that of midwives is also due to contagion being dependent in considerable part on a streptococcal carrier condition in doctors.

8. It has been shown conclusively that the streptococcus hæmolyticus plays by far the most important rôle in the causation of puerperal sepsis.

9. It has again been demonstrated that the same type of hæmolytic streptococcus can on occasion produce puerperal fever, scarlet fever, erysipelas, and pyogenic infections.

10. The evidence goes to show that an expansion and improvement of ante-natal services will result in an important reduction in maternal mortality.

11. The evidence supports the view that the development of a new midwifery organisation in which midwives conduct all normal deliveries, and in which doctors provide the ante-natal services and deal with obstetrical complications, will result in a significant reduction in puerperal mortality.

12. It has been shown that if the risk of contagion in maternity hospitals is to be restricted, then the number of patients and their spacing in the wards must be rigorously controlled.

13. So far as the specific prophylaxis of puerperal fever is concerned, it has been shown that while the exotoxins of the streptococci causing puerperal sepsis can be neutralised by any monovalent streptococcal antitoxin, the destruction of the organisms is only likely to be secured by the production of a type (serological) specific anti-bacterial serum.

During the year 1928 there were 25 deaths of women from causes associated with pregnancy or child-birth, including all deaths, whatever the precise cause, within four weeks after child-birth (or later if illness originated in the puerperium). All these deaths were inquired into by the Health Visitors, or information regarding them was obtained from the attending medical practitioners, who co-operate in giving the desired information.

YEAR	NUMBER OF BIRTHS (Corrected for Transfers).	MATERNAL DEATHS.		PUERPERAL SEPSIS.	
		Number of Deaths.	Rate per 1,000 Births.	Number of Deaths.	Rate per 1,000 Births.
1928	3,314	25	7·5	9	2·7
1927	3,182	21	6·6	8	2·5
1926	3,406	20	5·9	8	2·3
1925	3,390	21	6·2	9	2·7
1924	3,437	19	5·5	6	1·7
1923	3,766	24	6·4	8	2·1
Aver. 1923-27	3,436	21	6·1	8	2·3

It will be seen from the table that during 1928 there were 7·5 maternal deaths per 1,000 births, and of these the deaths from sepsis were 2·7 per 1,000 births.

In 4 of the cases the confinement was attended by midwife, in 9 by Maternity Hospital, in 7 by medical practitioners, and in the remaining 5 cases in other institutions.

In 4 of the cases the confinement was attended by a midwife, in 9 by Maternity followed after abortion, and in 5 cases labour was stated to have occurred prematurely. Seven patients died in their own homes, and 18 in institutions.

As far as can be ascertained from the records, the confinement which proved fatal was the first in 12 cases.

Report under the Midwives (Scotland) Act, 1915.

The report for the year 1928 under the Midwives (Scotland) Act, 1915, which has already been transmitted to the Central Midwives Board, is herewith submitted:—

The number of midwives who, during the year, intimated their intention to practise in the district was 19.

Births in Area or District.

Total Number of Births during 1928.	Total Number of Deaths of New-born Children (within ten days) during 1928.	Actual Number of Births attended by Midwives during 1928.	Actual Number of Deaths of New-born Children (within ten days) occurring in the practice of Mid-wives during 1928.	Actual Number of Cases not attended by a Doctor or Midwife during 1928.	
				Births.	Deaths.
Live—3,423 Still— 131	98	Live—652 Still— 22	16	Live—2 Still—0	2 0

Cases of Ophthalmia Neonatorum.

Total Number of Cases during 1928.	Actual Number of Cases occurring in the practice of Midwives during 1928.	Actual Number of Cases occurring where confinement not attended by a Doctor or Midwife during 1928.
51	23	0

Cases of Puerperal Sepsis.

Total Number of Cases during 1928.	Total Number of Deaths during 1928. (Uncorrected for Transfers.)	Actual Number of Cases occurring in the practice of Midwives during 1928.	Actual Number of Deaths occurring in the practice of Midwives during 1928.	Actual Number of cases occurring where confinement not attended by a Doctor or Midwife during 1928.	
				Cases.	Deaths.
48	10	8	1	0	0

Cases of Still-birth (Dead Born).

Total Number of Cases during 1928.	Actual Number of Cases occurring in the practice of Midwives during 1928.
131	22

Cases of Emergency.

Notifications were received from midwives of having in 147 cases sent for medical assistance. In all cases medical assistance was obtained. In 107 cases the assistance was required for the mother and in 40 cases for the child.

Summary of Cases.

1. During pregnancy	8
2. During parturition	76
3. After parturition	23
4. For infant	40
Total	147

£174 7s. was paid to doctors for the above services.

General Report on the Working of the Act.

During the year the Act has worked smoothly in this area. The midwives attended 19 per cent. of the births.

HOME VISITATION.

A record of the number of first visits and re-visits to infants under 1 year of age, to children in the 1-5 year period, and to expectant mothers, is here submitted :—

Infants under One Year.				Children One to Five Years.				Ante-Natal Cases.	
First Visits.		Re-visits.		First Visits.		Re-visits.		First Visits.	Re-visits.
Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.	Legit.	Illegit.		
2672	236	34654	2787	604	60	4728	253	126	159
2908		37441		664		4981		285	
40349				5645					

VOLUNTARY HEALTH VISITORS' REPORT.

The Voluntary Health Visitors' report, which is separately submitted, indicates the valuable contribution that is made to the work of Maternity and Child Welfare by the voluntary workers.

ANTE-NATAL CONSULTATIONS.

The extent and nature of the ante-natal work undertaken during the year at the Maternity Hospital and Ante-Natal Annexe (consultations twice weekly, of about two hours' duration), at the City Hospital (consultations once weekly), and at the Child Welfare Clinics (daily consultations) is summarised as follows:—

	Maternity Hospital Ante-Natal Annexe.	City Hospital Ante-Natal Clinic.	Child Welfare Clinics.
Total Number of Attendances	2,183	159 + 93 P.N.*	409
Total First Attendances	825	95 + 33 P.N.*	372
Number of First Cases—			
Referred to Ante-Natal Ward	—	—	—
Referred to family doctor or otherwise	—	17	5
Treated at Clinic	—	72	258
Referred to Maternity Hospital Ante-Natal Clinic	—	3	16
Not Pregnant	—	3	—
Referred to City Hospital Ante-Natal Clinc	—	—	93
Total,	825	95	372

* P.N. = Post-natal cases.

POST-NATAL AND OTHER CONSULTATIONS.

There were 608 first attendances and 1,055 re-attendances at post-natal consultations during the year.

CHILD WELFARE CONSULTATIONS.

The extent and nature of the work done at the Child Welfare consultations can be summarised as follows:—

Name of Centre.	Number of Weekly Sessions.	Duration (hrs.).
Woodside	1	1
Charlotte Street	2	2 to 2½
Torry	1	1
Old Aberdeen	1	1
Holburn (voluntary)	1	1
Castlegate	3	1½ to 2½
Gerrard Street (voluntary)	1	1

(*a*) Total number of attendances—	(1) Under 1 year of age	3,373
	(2) Over 1 year of age	1,955
(*b*) Number of first attendances—	(1) Under 1 year of age	1,243
	(2) Over 1 year of age	918

(*c*) Illnesses recorded—	Children under 1 year.		Children over 1 year.
Digestive System—Feeding	157	...	14
Vomiting	74	...	21
Enteritis	92	...	37
Constipation	106	...	14
Malnutrition	35	...	29
Thrush	15	...	7
Parasitic worms	—	...	16
Respiratory System—Nasal catarrh	37	...	11
Bronchitis	43	...	33
Pneumonia	6	...	4
V.D.—Syphilis	2	...	—
Gonorrhœa	—	...	—
Circulatory System	1	...	1
Nervous System	3	...	2
Skin—Infective Conditions	14	...	47
Other	83	..	43
Dental caries	—	...	227
Genito-urinary System	3	...	13
Eyes—Acute infections	17	...	13
Refractive errors	5	...	12
Ears	20	..	22
Nose and Throat—Tonsils and adenoids	1	...	19
Other	1	...	5
Infectious diseases	13	...	23
Tuberculosis	—	...	1
Enlarged glands	14	...	23
Congenital malformations	45	...	17
Accidents	6	...	12
Rickets	7	...	111
Hernia	55	...	9
Hydrocele	4	...	—
Vaccination	287	...	13
Inspection	—	...	56
Normal	54	...	16
Various	43	...	38
Bones, Joints	—	...	9
Total	1,243	...	918

SPECIAL TREATMENT CENTRES.

(1) *Teeth.*—The Dental Clinic which functions under the joint arrangement with the Education Authority and the Town Council provided the following services:—

(*a*) Number of Attendances—(1) Mothers	307	(242 cases).
(2) Children	311	(291 cases).

(*b*) Classified summary of Conditions remedied—

	Extractions.	General Anaesthetic.	Fillings.
(1) Mothers	1,613	299	7
(2) Children	1,073	311	0

(*c*) Number of Dentures supplied—*Nil.*

(*d*) Net cost of Dentures, less sums recovered—*Nil.*

(2) *Eyes.*—The Ophthalmic Clinic which functions under the joint arrangement with the Education Authority and the Town Council, and is confined to the treatment of cases suffering from refractive defects, &c., was utilised to the extent of providing treatment for 18 cases of strabismus. In other cases, treatment was obtained by the parents directly from the Aberdeen Royal Infirmary or Eye Institution, and several other cases seen at the Child Welfare Clinics were asked to come up later for examination, as the children were too young to wear glasses or the defect was slight.

(3) *Other Ailments.*—No records available.

(4) *Ultra-violet Light Clinic.*—

Children under 5 years of age treated at the City Hospital—

Number of cases referred by Maternity and Child Welfare Medical Officer	53
Number of cases referred by general practitioners	39
Total	92

Conditions for which treatment was given:—

	No. of Cases.
Rickets	35
Wasting and Debility	21
Adenopathy	27
Chronic Bronchitis	3
Persistent Diarrhœa	2
Chronic Nasal Discharge	1
Post-anterior Poliomyelitis	1
Chorea	1
Backwardness	1
Total	92

Results of Treatment.

Disease.	Cured.	Improved.	Stationary.	Worse.	Total.
Rickets	20	10	5*	0	35
Wasting and Debility	9	9	2	1	21
Adenopathy	15	8	3	1	27
Chronic Bronchitis	2	1	0	0	3
Persistent Diarrhœa	2	0	0	0	2
Chronic Nasal Catarrh	0	1	0	0	1
Post-anterior Poliomyelitis	0	0	1	0	1
Chorea	0	1	0	0	1
Backwardness	0	0	1	0	1
Total	48	30	12	2	92
Percentages	52%	32·7%	13·5%	1·8%	100%

* Cases with Ricketic deformities but with no sign of active Rickets.

DAY NURSERIES, KINDERGARTENS, AND PLAY CENTRES.

The Day Nursery at Charlotte Street undertakes the main work under this heading, and there is, in addition, a play centre at the Castlegate Child Welfare Centre, which is open daily from 2 to 5 p.m. The attendances and charges at the Charlotte Street Day Nursery are as follows:—

(*a*) Total number of Attendances—7,598.
Fresh Admissions—(1) Under 1 year, 30; (2) over 1 year 61—91.
Average Daily Attendance—29.

(*b*) Charges made—5d. per day for one child; 9d. per day for two children.

(*c*) Receipts—£153 6s. 1d.

FOOD AND MILK.

During the year, food and milk were supplied to the following extent:—

(a) Number of Applicants for Food or Milk—(1) Mothers	198
(2) Children	228
(*b*) Number of cases certified on medical grounds as requiring Food or Milk—	
(1) Mothers	188
(2) Children	220
(*c*) Number of cases under (*b*) certified as necessitous—(1) Mothers	188
(2) Children	220

(*d*) Information as to supply of Milk Substitutes, Medicinal Foods, &c.—

In addition to the above, milk substitutes in the form of Glaxo were supplied to 52 recipients (not included in (*b*)) at cost price on necessitous grounds. 2,290 Soup Kitchen checks, at a cost of 2d. each, were given free to 41 deserving cases (not included in (*b*)), whereby such cases received soup and bread at the Public Soup Kitchen. Cod Liver Oil Emulsion, Glaxovo, Roboleine, and Virol were supplied at cost price or free, at the discretion of the Medical Officer, where considered necessary.

MEASLES AND WHOOPING-COUGH.

As regards children under five years of age suffering from measles and whooping-cough, the following information is submitted:—

	Measles.	Whooping-cough.
(*a*) Number of cases notified (partial notification) ...	765	284
(*b*) Total number of deaths	49	35
(1) From measles or whooping-cough . . .	5	6
(2) From sequelæ	44	29
(*c*) Number of cases removed to Hospital . . .	106	39
(*d*) Number of special domiciliary visits—		
(1) First visits	765	284
(2) Total visits	1,615	590

(*e*) Details of special staff engaged for epidemics—one health visitor specially engaged for infectious disease work, and, in addition, one senior nurse from the City Hospital was engaged practically full-time from middle of April to end of May, 1928, in visiting cases of measles and whooping-cough in their own homes, and these visits were confined to children under five years of age.

OPHTHALMIA NEONATORUM.

Ophthalmia neonatorum is referred to in the sections of this Report dealing with infectious diseases and venereal diseases. The following additional information is submitted:—

Year.	Number of Registered Births.	Number of Notified Cases of Ophthalmia Neonatorum.	Rate per 1,000 Registered Births.
1928	3,448	51	14·8
1927	3,324	54	16·2
1926	3,557	48	13·5
1925	3,535	59	16·7
1924	3,527	69	19·6
1923	3,847	63	16·3
1922	4,038	47	11·6
1921	4,336	100	23·1
1920	5,010	112	22·4
1919	3,458	99	28·6

Cases notified during 1928—	
By Medical Practioners . .	18
By Midwives	19
By Institutions	6
By Health Visitors . . .	8

Occurring in the practice of—	
Medical Practitioners . .	17
Midwives	23
Maternity Hospital—	
(*a*) In Wards	8
(*b*) At Home	3

Number of cases in which infection was gonococcal—5, or 10·0 per cent. of cases.

Seven cases were treated in residential institutions, and 24 as out-patients in other institutions.

Results.—In 49 cases a complete cure was obtained, and in the other 2 cases the children died of intercurrent disease while under treatment for ophthalmia.

MATERNITY HOSPITAL.

1. Ante-natal cases—
   (*a*) Number of cases treated—233.
2. Abortions—
   Abortions not now admitted.

3 and 4. Number of confinements—

(*a*) In Wards—645 (including 8 twin confinements).

(*b*) In District—197 (including 3 twin confinements and 1 case of triplets).

Number of cases of morbidity	37
Number of deaths	10
Causes of death—	
Toxic vomiting of pregnancy	1
Post partum hæmorrhage	2
Puerperal sepsis	5
Pyelitis	2
Total	10

	In Wards.	In District
5. Number of infants born—(1) Alive	603	194
(2) Still	50	8
6. Number of deaths of infants under ten days	21	8

7. Number of cases of puerperal fever removed from institution 9

WOODEND HOSPITAL.

1. Ante-natal cases—

No in-patient ante-natal treatment found necessary.

2. Abortions—

There were seven abortions, four of which were completed digitally or with the use of the curette. In the remainder, packing and pituitrin were employed successfully. Two of the cases were admitted as incomplete, the remainder as inevitable.

3 and 4. Number of confinements—

There were 36 confinements, 18 of which were first pregnancies, 10 second, 3 third, 2 fourth, 1 fifth, 1 sixth, and 1 seventh.

Normal labour occurred in 32, the four abnormal cases comprising one case of twins, 1 breech, one transverse, and one caesarean section, the latter being a case of contracted pelvis with placenta praevia.

The complications met with were—Cases of eclampsia, 2; albuminuria, 2; accidental haemorrhage, 2; torn perineum, 2; pulmonary embolism, 1; and puerperal pyrexia, 1—the latter being removed to the City Hospital, where she recovered within a week.

Number of cases of morbidity, 2 (neither instrumental).

Number of deaths, 1 (due to pulmonary embolism).

5. Number of infants born—	
(*a*) Alive	35
(*b*) Still	2
6. Number of deaths of infants under ten days	1
7. Number of cases of puerperal fever removed from institution	1

MATERNITY HOMES (PRIVATE).

1. Ante-natal cases—

(*a*) Number of cases treated	4

(*b*) Statement of conditions found—

1 placenta praevia, 1 hyperemesis, 2 albuminuria.

(*c*) Statement of results of treatment—

1 died of toxic albuminuria, the other 3 recovered.

2. Abortions—	
(*a*) Number of cases	2
(*b*) Results—	
1 incomplete and recovered, 1 ectopic gest. and died.	
3. Abnormal or complicated confinements—	
(*a*) Number of cases	See 4 (*c*).
(*b*) Statement of conditions found	
(*c*) Results	
4. Other cases of confinement—	
(*a*) Number of normal deliveries—	
(1) With medical assistance	70
(2) Without medical assistance	—
(*b*) Number of instrumental deliveries	26
(*c*) Number of cases of morbidity (B.M.A. standard)	2
(*d*) Number of cases under (*c*) in which delivery was instrumental	1 (Abortion)
(*e*) Number of deaths (classified)	1 (Embolism)
5. Number of infants born—(1) Alive	95 (1 pr. twins)
(2) Still	2
6. Number of deaths of infants under ten days	5
7. Number of cases of puerperal fever removed from institutions	—

STATEMENT IN REGARD TO THE ADMINISTRATION OF PART 2 OF THE MIDWIVES AND MATERNITY HOMES (SCOTLAND) ACT, 1927.

1. Total number of Maternity Homes registered in the area—

Eight Maternity Homes were registered in the area during 1928—the Maternity Hospital and seven private homes.

2. Total number of beds in such Homes—

In Maternity Hospital	8 Ante-Natal Beds	24 Natal Beds.
In private Homes	— ,,	19 ,,
Total	8 ,,	43 ,,

The Maternity Hospital was registered for 20 natal beds in the beginning of the year, but during December another ward with accommodation for 4 beds was made available.

3 Applications registered or refused or registrations cancelled during the year—

The eight applications above referred to (1) were received and granted. Other four applications were received, but when it was pointed out to applicants that their premises were not suitable for a Maternity Home, the applications were withdrawn.

During the year one Maternity Home changed hands, and the original registration was cancelled and a fresh one granted.

4. Inspections made during the year—120.

HOMES FOR UNMARRIED MOTHERS BEFORE AND AFTER CONFINEMENT.

Unmarried mothers in their second or subsequent pregnancies are admitted to Loch Street Home. This home is centrally situated and permits mothers who are employed to continue breast-feeding. Unmarried mothers with their first pregnancy are admitted to Burnside Home. A total of 14 unmarried mothers was admitted to Loch Street Home, and 74 unmarried mothers to Burnside Home.

HOSPITALS FOR SICK CHILDREN.

The *Royal Hospital for Sick Children* is a voluntary institution, and surgical and medical cases are freely admitted there. No separate records are kept of the work done in connection with the treatment of children under five years of age, nor are City cases differentiated from County cases.

The *Marasmus Ward at the City Hospital* provides 22 cots for infants suffering chiefly from nutritional disorders. In all, a total of 190 infants was admitted to this ward during the year.

	Under One Year.	Over One Year.
Number in Hospital on 1st January, 1928,	8	12
Number of Admissions during year,	79	111
Number in Hospital on 31st December, 1928,	11	9
Number discharged during year,	55	105
Number died during year,	21	9

The conditions treated, with the results of treatment, were as follows:—

	Cases.	Improved.	Died.	Removed at request of Parents or transferred to other Wards.
Digestive System—Vomiting,	10	8	1	1
Enteritis,	15	10	4	1
Constipation,	1	1	0	0
Malnutrition,	35	25	8	2
Respiratory System—Pneumonia,	80	66	11	3
Bronchitis,	5	4	0	1
Skin—Infective conditions,	1	1	0	0
Other,	0	0	0	0
Venereal Disease—Syphilis,	1	1	0	0
Rickets,	28	24	1	3
Prematurity,	1	0	1	0
Miscellaneous,	3	1	2	0
Circulatory System,	0	0	0	0
Ears discharging,	1	1	0	0
Eye conditions,	2	2	0	0
Tuberculosis,	3	0	2	1
Hernia,	0	0	0	0
Congenital Malformation,	1	1	0	0
Normal,	3	3	0	0
	190	148	30	12

Average Period of Residence—33 days.

Note as to Infectious Diseases:—

Measles	78 Cases.	Measles and Flexner Dysentery,	1 Case.
Flexner Dysentery,	3 ,,	Measles and Diphtheria,	1 ,,
Sonne Dysentery,	7 ,,		
Erysipelas,	1 ,,		91 Cases.

A *Ward at Woodend Hospital* provides 14 cots for infants suffering chiefly from rickets and orthopædic disabilities.

	Under One Year.	Over One Year.
Number in Hospital on 1st January, 1928,	4	6
Number of Admissions during year,	18	53
Number in Hospital on 31st December, 1928,	0	13
Number discharged during year,	21	46
Number died during year,	1	0

The conditions treated, with the results of treatment, were as follows:—

	Cases.	Improved.	Died.	Removed at request of Parents or tranferred to other Wards.
Digestive System—Vomiting,	1	1	0	0
Enteritis,	0	0	0	0
Constipation,	0	0	0	0
Malnutrition,	14	12	0	2
Respiratory System—Pneumonia,	0	0	0	0
Bronchitis,	2	2	0	0
Skin—Infective conditions,	0	0	0	0
Other,	2	2	0	0
Venereal Disease—Syphilis,	1	1	0	0
Rickets,	39	38	0	1
Prematurity,	0	0	0	0
Miscellaneous,	4	3	1	0
Circulatory System,	0	0	0	0
Ears discharging	0	0	0	0
Eye conditions,	1	1	0	0
Tuberculosis,	0	0	0	0
Hernia,	0	0	0	0
Congenital Malformation,	0	0	0	0
Normal,	4	3	0	1
	68	63	1	4

Average Period of Residence—62 days.

Note as to Infectious Disease:—

Whooping-cough,	4 cases.
Sonne Dysentery,	11 ,,
	15

Convalescent Homes.

Burnside Home provides accommodation for 10 mothers and 42 children. The Home is mainly utilised for the admission of married women after their confinement, with the object of providing them with rest and instruction in baby care.

Loch Street Home provides accommodation for 8 mothers and 10 infants, and is mainly used for admission of unmarried mothers both before and after confinement. Details of cases treated are as follows:—

	Burnside Home.	Loch Street Home.
Number of cases treated—		
Mothers,	133	21
Children under 1 year,	163	10
Children over 1 year,	42	44
	338	75
Average duration of residence—		
Mothers,	14 days.	47 days.
Children,	57 days.	50 days.
Note as to Infectious Disease—		
Whooping-Cough,	7 cases.	......
Sonne Dysentery,	3 cases.	......
Measles,	1 case.	......
Nasal Diphtheria,	1 case.	......
Chicken-pox,	14 cases.	......
Erysipelas,	1 case.	......
	27 cases.	......

Boarding-Out.

No arrangements are made for boarding-out City infants.

Home-Helps.

13 Home-Helps were employed in the homes; average period of assistance, 36 days; cost,	£33	2	6
5 Home-Helps were employed for washing; average number of washings per patient, 8; cost,	7	5	6
Total cost,	£40	8	0

EDUCATIONAL.

The short courses of Health Lectures for women by Dr. Sandeman and Dr. Howie were continued in 1928.

During November and December, a course of lectures was given by Dr. Sandeman at Charlotte Street Centre on Thursday evenings; average attendance, 150. During the same months, a course of lectures was given by Dr. Howie at Castlegate Centre on Wednesday evenings; average attendance, 40.

Lectures and Demonstrations at Child Welfare Centres.—From September to June, lectures or talks of half an hour's duration on Motherhood and Infant Care are given by the Child Welfare Medical Officer to mothers attending the Centres. At each Centre cooking demonstrations are given once a month by one of the voluntary workers, or by a Domestic Science teacher from the Education Authority's staff, and demonstrations on dressmaking, &c., are given once a month by one of the voluntary workers. The attendances of the mothers at these meetings are given in the annual report of the Aberdeen Mother and Child Welfare Association.

NOTE OF AGENCIES, NOT REFERRED TO ABOVE, ASSOCIATED WITH SCHEME.

The Department works in close co-operation with the Aberdeen Association for Improving the Condition of the Poor. The Shelter for children provided by the Association continues to prove of great value.

Linnmoor Home.—During the year, eight cots for children from 3 to 5 years of age were made available at Linnmoor Home, a convalescent home in the country which accommodates children who are requiring fresh air and good food. Full use has been made of this accommodation.

OTHER PROVISIONS.

Cases of pneumonia are admitted to the City Hospital or Woodend Hospital when the home conditions are unsatisfactory. Cases of bronchitis are similarly admitted to the City Hospital or to the Sick Children's Hospital. Cases of acute poliomyelitis are treated in the City Hospital during the acute stage of illness, and later receive out-patient treatment at the Sick Children's Hospital.

PORT SANITARY SERVICES.

TRADE AND SHIPPING.

The total foreign and coastwise shipping entering the Port during 1928 was 18,626 vessels, of which 2,144 were foreign. The total tonnage of all vessels was 2,181,050, of which 447,836 was foreign.

The British ports with which Aberdeen trades mostly include Blyth, Dundee, Grangemouth, Granton, Hull, Leith, Lerwick, Liverpool, London, Middlesbrough, Newcastle, Seaham, Shields, Sunderland, Tyne, Wick, and the Orkney and Shetland Islands.

The foreign ports with which Aberdeen has most trade include Antwerp, Archangel, Drammen, Gothenburg, Hamburg, Karlshamm, Larvik, New York, Oslo, Riga, Rotterdam, and North African ports.

The principal imports to Aberdeen are of the following nature, viz.:—Cement, coals, esparto grass, fish, flax, flour, granite, hemp, iron, jute, linseed and rape seed, maize, oilcake, oils, phosphates, salts, wood, wood pulp, and cattle, pigs, and sheep.

The principal exports are as follows:—Fish, flour, granite, hides and skins, jute (manufactured), manure (manufactured), oatmeal, oats, oilcake, oils, paper and paper boxes, pitch, preserved provisions, soap, and cattle, pigs, and sheep.

MEDICAL INSPECTION OF SHIPPING.

The amount of shipping entering the Port during the year, distinguished as foreign and coastwise, together with the number of ships inspected and the nature of the defects and number of notices issued in connection therewith, are set forth in the following table:—

		Number of Vessels.	Tonnage of Vessels.	Number Inspected.		Number reported to be Defective.	Number of Notices issued.
				By the Medical Officer of Health.	By the Sanitary Inspector.		
Foreign—	Steamers	360	298,413	19	287	25	23
	Motor	5	484	...	5	...	...
	Sailing	3	349	...	3	...	...
	Fishing	1,776	148,590	...	4	1	...
Total Foreign		2,144	447,836	19	299	26	23
Coastwise—	Steamers	2,013	617,767	...	167	6	5
	Motor	13	4,026	...	5	...	...
	Sailing	2	266	...	2	...	...
	Fishing	14,454	1,111,155	...	3	2	2
Total Coastwise		16,482	1,733,214	...	177	8	7
Total Foreign and Coastwise		**18,626**	**2,181,050**	**19**	**476**	**34**	**30**

It will be seen that of the 18,626 vessels entering the Port, 16,230 were fishing vessels. In general, it may be said that the danger of fishing vessels importing infectious disease is largely confined to vessels from English or German ports introducing small-pox or other infectious diseases from these countries. The main sanitary control of fishing vessels has reference to remedying sanitary defects and verminous conditions. Arrangements have been made whereby the sanitary control of fishing vessels will be extended with special reference to dealing with verminous conditions.

In all, 8 persons, from 7 vessels, were removed to hospital for treatment during the year. The admissions included two cases of venereal disease, one case of dysentery, one of pneumonia, and one of diphtheria. The necessary disinfection was carried out in each case.

RAT DESTRUCTION—PRECAUTIONS AGAINST PLAGUE.

Trapping of rats within the area of the Harbour Commissioners is regularly carried out, and these rats are submitted to laboratory examination for plague. In all, 94 rats were thus examined in Aberdeen during 1928, but no laboratory evidence of plague infection in the rats was obtained.

The following measure of work on rat destruction carried out by the two whole-time rat-catchers of the Health Department is submitted:—

Number of pieces of poison bait laid, ...	120,642.
Number of pieces of poison bait eaten, . . .	34,205,
Liquid poison laid, ...	3 pints.
Liquid poison consumed, ...	0 pints.
Dry poison bait (mice) laid, ...	135½ ounces.
Dry poison bait (mice) eaten, ...	23 ounces.

In addition, liquid poison in the form of red squills was sold by the Health Department to occupiers of business premises and dwelling-houses within the City. The quantity sold amounted to 31 gallons, sufficient for the making up of 59,160 baits; and from the returns obtained from the purchasers it would appear that approximately 43 per cent. of the baits were eaten.

No ships from plague-infected ports entered Aberdeen during the year.

Nine vessels from foreign ports, in which evidence was obtained that rats were present on board, were dealt with, including 2 vessels on which fumigation was carried out. In addition, 6 local vessels were also dealt with.

VETERINARY SERVICES.

The activities of the Health Department that are subject for discussion under "Veterinary Services" relate mainly to the control of food supplies.

Milk Control.

CERTIFIED MILK.

In 1928, eight firms of milk retailers had their licences to retail Certified Milk renewed, while one firm of milk retailers was licensed.

MARKET MILK.

In 1928, a total of 90 milk samples was examined for the presence of tubercle bacilli, and reference to the accompanying table shows that tubercle bacilli were present in 6 of the samples, or 6·7 per cent. Of 108 samples examined in 1927, 8·3 per cent. contained tubercle bacilli; and of 90 samples examined in 1926, 7·8 per cent. contained tubercle bacilli. As regards the general bacterial examination of market milk, a total of 90 samples was examined during 1928, and the table shows that 75 of these samples, or 83 per cent., as compared with 65 per cent. in 1923, did not contain more than 200,000 organisms per cubic centimetre.

Bacteriological Examination of Milk Samples.

Year.	Tubercle.			General Bacteria—No. in 1 c.c.							
	No.	Pos.	Per Cent. Pos.	No.	Not exceeding						Exceeding
					10,000.	50,000.	100,000.	200,000	1,000,000.	5,000,000.	5,000 000.
1928	90	6	6·7	90	8	38	17	12	3	9	3
1927	108	9	8·3	106	16	44	12	15	14	2	3
1926	90	7	7·8	108	15	38	12	14	16	8	5
1925	132	4	3·0	171	27	67	31	17	21	7	1
1924	176	9	5·1	274	14	106	54	24	47	15	14
1923	230	13	5·7	392	23	113	78	39	90	35	14
Aver. 1923-27	147	8	5·7	210	19	74	37	22	38	13	7

DAIRY HERDS.

The number of dairy herds in the City is still showing a gradual decline. During 1928, there were only 15 herds, the average number of cows being 115. The herds were inspected once a month. Most of the premises have been altered to conform with the bye-laws, and all have been kept in a satisfactory condition.

Meat Control.

MEAT INSPECTION.

There are five slaughter-houses in the City, and, as has been pointed out in preceding Reports, it is impossible to secure adequate inspection of meat in five widely separated slaughter-houses.

The number and class of animals killed in the five slaughter-houses during the year were as follows:—

Cattle.					Sheep.		Pigs.
Oxen.	Heifers.	Cows.	Bulls.	Calves.	Sheep.	Lambs.	
26,294	20,884	546	292	46	100,571	8,248	5,565

The following table gives the number of carcases inspected and the weight of meat seized as unfit for human food in these slaughter-houses during the year:—

	Oxen.	Bulls.	Cows.	Heifers.	Calves.	Sheep.	Pigs.
Number of carcases inspected, .	*	292	546	*	46	*	5,565
Number of carcases seized wholly—							
(1) For tuberculosis, . .	45	1	44	56	0	0	27
(2) For other diseases, . .	7	0	46	7	3	48	13
Number of carcases of which portions were seized—							
(1) For tuberculosis, . .	120	3	37	135	0	0	136
(2) For other diseases, . .	46	0	70	21	0	19	28
Total weight of meat seized, .	69,651 lbs.	2,310 lbs.	59,533 lbs.	68,952 lbs.	393 lbs.	2,300 lbs.	9,451 lbs.

* Accurate figures as to the number of oxen, heifer, and sheep carcases inspected are not available. With five slaughter-houses to visit, it is impossible, as a routine, to inspect every carcase in detail. Every ox, heifer, or sheep carcase showing evidence of disease is, of course, thoroughly examined, and all carcases of bulls, cows, calves, and pigs are inspected.

Particulars are given below regarding the carcases seized wholly for diseases other than tuberculosis:—

Disease.	Oxen.	Bulls.	Cows.	Heifers.	Calves.	Sheep.	Pigs.
Sarcocysts,	...	...	1	...	...	...	...
Neoplasms.	...	...	1	...	...	...	...
Septicaemia,	...	...	...	...	...	...	1
Septic Mammitis,	...	...	3	...	...	...	...
Septic Metritis,	...	...	10	..	...	...	..
Septic Pericarditis,	1	...	...	...	...	...	...
Septic Peritonitis,	...	...	2	1	...	...	1
Pneumonia,	1	...	...	...	...	...	..
Dropsy,	1	..	2	.	...	17	2
Rickets,	..	...	...	...	...	...	3
Enteritis	...	...	1	...	1	...	1
Decomposition,	...	...	4	..	1	28	3
Emaciation,	...	...	...	..	...	1	...
Extensive bruising,	1	...	3	1	..	2	1
Fevered or badly bled,	3	...	13	4	...	...	...
Abnormal odour and various inflammatory conditions, &c., chiefly in emergency slaughter,	...	...	6	1	1	...	1
Total,	7	..	46	7	3	48	13

There are two large wholesale meat marts in Aberdeen to which carcases are consigned from County districts. As a routine all such carcases are inspected by the Meat Inspector in Aberdeen, and the following table gives the number of carcases and the weight of meat seized as unfit for human food in these marts:—

	Oxen.	Bulls.	Cows	Heifers.	Calves.	Sheep.	Pigs.
Number of carcases seized wholly—							
(1) For tuberculosis,	0	0	5	7	0	0	7
(2) For other diseases,	17	1	24	8	3	32	7
Number of carcases of which portions were seized—							
(1) For tuberculosis,	7	0	6	4	0	0	6
(2) For other diseases,	32	1	52	16	3	12	3
Total weight of meat seized,	11,977 lbs.	829 lbs.	19,696 lbs.	7,520 lbs.	404 lbs.	1,599 lbs.	2,584 lbs.

PROSECUTIONS.

In two cases it was found necessary to institute legal proceedings against butchers for having in their possession, or having sold or exposed for sale, food which was unfit for human consumption.

A butcher in Aberdeen delivered at the premises of another butcher the carcase of a pig, part of which was consigned to one of the wholesale marts in the City. There the Meat Inspector found that this part was affected with tuberculosis, and on making investigation was able to obtain the whole carcase of the pig, which was grossly affected with tuberculosis. A fine of £20 was imposed on the butcher who originally sold the pig, and the butcher in whose possession the pig was actually found was fined £5.

Control of other Foods.

In addition to the control of milk and milk food products, and of meat, the Health Department continues an extensive supervision of other foods. Thus, the Fish Market is visited daily, and the quantity of fish destroyed as unfit for human food in 1928 was 67,764 lbs., as compared with 23,906 lbs. in 1927. The sale of fruit and vegetables, both wholesale and retail, is also under extensive supervision. So also considerable attention continues to be paid to the inspection of tinned foods, and all factories where such articles are prepared are regularly visited. Provision curing yards, wholesale warehouses, and shops are also subject to routine visitation.

LABORATORY SERVICES.

The following statement gives in detail the number and results of examinations for the City of Aberdeen (including City Hospital) carried out in the City Hospital Laboratories during the year 1928:—

LABORATORY EXAMINATIONS FOR THE CITY OF ABERDEEN.

	Positive.	Negative.	Total.	Grand Total.
Diphtheria, ...	849	10,708	11,557	11,557
Tuberculosis—				
Sputum, ...	684	2,034	2,718	
Pus, ...	3	33	36	
Urines, ...	26	240	266	
Fæces, ...	5	38	43	
Cerebro-spinal fluids, . . .	7	8	15	
			——	3,078
Typhoid—				
Widals, ...	5	101	106	
Blood Cultures, ...	1	1	2	
Fæces, ...	13	98	111	
Urines, ...	16	39	55	
			——	274
Paratyphoid A and B—				
Widals, ...	19	193	212	
Blood Cultures, ...	2	4	6	
Fæces, ...	44	105	149	
Urines, ...	7	124	131	
			——	498
Bacillary Dysentery—				
Agglutinations, ...	13	11	24	
Fæces, ...	174	991	1,165	
			——	1,189
Food Poisoning—				
Agglutinations, ...	0	2	2	
Fæces, ...	0	63	63	
Vomit, ...	0	2	2	
Food, ...	0	13	13	
			——	80
				——
Carry forward, ...				16,676

Venereal Diseases—	Positive.	Negative.	Total.	Grand Total.
Brought forward,				16,676
Wassermann Tests,	320	1,083	1,403	
Kahn Tests,	305	1,025	1,330	
Gonococcal Examinations,	221	1,532	1,753	
Spirochete Examinations	2	10	12	
			——	4,498
Epidemic Cerebro-Spinal Meningitis—				
Cerebro-Spinal Fluids,.	3	1	4	4
Puerperal Fever—				
Blood Cultures,	6	56	62	
Pus,	33	20	53	
Cervical swabs for S. hæmolyticus,	..	...	63	
			——	178
General—				
Blood Counts,			29	
Blood Cultures,			68	
Cerebro-Spinal Fluids,			56	
Differential Cell Counts,			59	
Fæces for Organisms,			29	
Fæces for Protozoal Examination,			30	
Malaria,			18	
Histological Specimens,			90	
Ophthalmia Neonatorum,			119	
Pus for Organisms,			290	
Sputum for Organisms,			161	
Throat, Nose, and Ear Swabs for Organisms,			349	
Urines for Bacteriological Examination,			283	
Urines for General Pathological Examination,			2,387	
Vaccines,			185	
Pleural Fluids,			47	
Autopsies,			41	
Miscellaneous,			10	
			——	4,251
Animal Specimens—				
Meat Specimens,			122	122
Biochemical Estimation—				
Blood Sugar,			85	
Urinary Sugar,			287	
Blood Urea,			23	
Urine Urea,			3	
Calcium and Phosphorus,			54	
Miscellaneous,			12	
			——	464
Water, Food, and Drug Samples—				
Bacteriological Examination of Waters,			233	
Chemical Examination of Waters,			10	
Bacteriological Examination of Milks,			223	
All samples analysed under the Sale of Food and Drugs Acts and Public Health Regulations,			1,489	
			——	1,955
Carry forward,				28,148

Animal Experiments—	Total.	Grand Total.
Brought forward,		28,148
Guinea-pigs inoculated with milk deposits for tubercle bacilli,	95	
Guinea-pigs inoculated with human material for tubercle bacilli,	12	
Guinea-pigs inoculated with material for B. anthracis,	7	
Guinea-pigs used for diphtheria virulence test,	5	
Mice used in typing pneumococci,	44	
		163
		28,311

In addition to the above examinations for the City of Aberdeen, 3,761 examinations were carried out for the North-Eastern Counties within the Laboratory Services Scheme.

CHAPTER IV.

STATISTICAL COMMENTARY.

POPULATION.

The population of the City (including the inmates of Parish Hospital and Kingseat Mental Hospital chargeable to Aberdeen) at the middle of the year was 159,954. The estimate is based on the census population for 1921; and the subsequent increase or decline is calculated by adding the excess of births over deaths and adding or subtracting the loss or gain of population due to emigration and immigration.

The accompanying table gives the percentage and number of population at each of the principal age-periods.

TABLE XXII.—ABERDEEN.—POPULATION AT VARIOUS AGE-PERIODS—1928.

(As estimated from Proportions at Census of 1921.)

		Under 1 year.	1 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 years and upwards.	ALL AGES.
Percentage of Population at each Age (according to Census)	1911	2·23	9·03	22·13	19·13	26·84	15·31	5·33	...
	1921	2·35	6·66	19·41	20·00	27·00	18·42	6·16	...
Estimated Population at each Age-Period in . .	1928	3,759	10,653	31,047	31,991	43,188	29,463	9,853	159,954

BIRTHS.

(Table XXIII.)

The total number of births during the year 1928, corrected for transfers, was 3,314, equivalent to a rate of 20·7 per 1,000 of the population, as against a rate of 20·0 per 1,000 in 1927. The average rate for the 1923-1927 quinquennium was 21·7.

Proportion of Males to Females.—The number of male infants to every 100 female infants, corrected for transfers, during 1928, was 103, as compared with 107 for 1927.

Illegitimate Births.—In 1928, the number of illegitimate births, after correction for transfers, was 293, and amounted to 8·8 per cent. of the total births. The average rate for the 1923-1927 quinquennium was 7·4.

Births in Proportion to Women of Child-bearing Ages (15-45 years).—When the births are compared with the number of women of fertile ages in the population, it is found that the number of legitimate births among married women in 1928 amounted to 174 per 1,000 of such women at the ages specified. In 1927, the rate was 171.

Similarly stated, the illegitimate birth-rate among unmarried and widowed women of the fertile ages was 12·1 per 1,000 in 1928. In 1927, it was 9·9.

Still-births.—In 1928, the number of still-births was 131 and amounted to 38 per 1,000 registered births. The average rate for the preceding quinquennium was 42·2.

MARRIAGES.

(Table XXIII.)

During the year 1928, there were 1,531 marriages within the City, equivalent to a rate of 9·6 per 1,000 of the population, as against a rate of 9·5 in 1927. The average rate for the 1923-1927 quinquennium was 9·4.

Residence.—In 1928, 1,055 of the males married were ordinarily resident in Aberdeen, the remaining 476 coming from outwith the City. As regards the females, 1,143 were ordinarily resident in the City, and 388 lived outside the City.

Status.—In the 1,531 marriages in 1928, the persons married included 133 widowers and 75 widows.

DEATHS.

(Table XXIII.)

The total number of deaths during 1928, corrected for transfers, was 2,237, equivalent to a death-rate of 14·0 per 1,000 of the population. For the quinquennium 1923-1927, the average annual number of deaths was 2,185, with a rate of 13·8.

The Average Age at Death of all persons dying during 1928 was 48·2 years. In the 1923-1927 quinquennium, it was 46·7 years.

Excess of Birth-Rate over Death-Rate.—In Table XXIII. will be found a column giving the excess of the birth-rate over the death-rate since the commencement of registration. The excess in 1928 was 6·7. For the quinquennium 1923-1927, the excess was 7·9. The usual excess of birth-rate over death-rate for many years prior to 1911 was about 11 to 14.

ANALYSIS OF THE DEATH-RATE.

Mortality in Relation to Age and Causes (Tables XIX., XXIV., and XXV.)

Infant Mortality.—This is dealt with in detail in the section of this Report relating to Maternity and Child Welfare Services.

TABLE XXIII.—ABERDEEN.—MARRIAGE, BIRTH, AND DEATH-RATES—1856 TO 1928.

Per 1,000 of population.

Year.	Population.	Marriages.		Births.†			Deaths.‡			Excess of Birth-Rate over Death-Rate.
		Number.	Rate per 1,000 of Population.	Number.	Rate per 1,000 of Population.	Illegit. Births per 100 Total Births.	Number.	Rate per 1,000 of Population	Average Age at Death.	
1928	159,954	1,531	9·6	3,314	20·7	8·8	2,237	14·0	48·2	6·7
1927	159,168	1,502	9·5	3,182	20·0	7·5	2,180	13·7	49·1	6·2
1926	158,723	1,403	8·9	3,406	21·5	7·0	2,115	13·3	48·0	8·2
1925	158,144	1,519	9·6	3,390	21·4	7·4	2,170	13·7	46·5	7·7
1924	157,764	1,459	9·2	3,437	21·8	7·2	2,302	14·6	44·7	7·2
1923	159,498	1,564	9·8	3,766	23·6	7·7	2,157	13·5	45·1	10·1
Mean of 1923-1927	158,659	1,489	9·4	3,436	21·7	7·4	2,185	13·8	46·7	7·9
1922	160,308	1,616	10·1	3,969	24·8	9·7	2,595	16·2	41·5	8·6
1921	159,915	1,751	10·9	4,254	26·6	9·2	2,292	14·3	44·1	12·3
1920	160,466	2,122	13·2	4,868	30·3	9·3	2,398	14·9	40·1	15·4
1919	161,017	2,235	13·9	3,379	21·0	10·6	2,469	15·3	43·4	5·7
1918	161,568	1,626	10·1	2,721	16·8	11·4	2,573	15·9	40·6	0·9
Mean of 1918-1922	160,655	1,870	11·6	3,838	23·9	10·0	2,465	15·3	41·9	8·6
1916-1920	161,568	1,754	10·9	3,479	21·5	10·6	2,439	15·1	41·7	6·5
1911-1915	164,324	1,489	9·1	3,959	24·1	10·2	2,752	16·8	38·1	7.4
1906-1910	163,620	1,360	8·3	4,505	27·5	9·7	2,512	15·4	37·6	12·2
1901-1905	158,082	1,428	9·0	4,872	30·8	8·5	2,763	17·5	34·9	13·3
1896-1900	145,740	1,356	9·3	4,636	31·8	8·3	2,644	18·1	33·3	13·7
1891-1895	131,627	1,099	8·4	4,114	31·3	9·8	2,539	19·3	32·9	12·0
1886-1890	117,587	911	7·8	3,827	32·5	10·4	2,370	20·2	...	12·3
1881-1885	108,959	848	7·8	3,712	34·1	10·6	2,159	19·8	...	14·3
1876-1880	100,419	788	7·9	3,480	34·7	10·9	2,100	20·9	...	13·8
1871-1875	91,941	705	7·7	3,169	34·5	12·1	2,063	22·4	...	12·1
1866-1870	84,234	684	8·1	3,010	35·7	12·9	1,978	23·5	...	12·2
1861-1865	77,040	624	8·1	2,663	34·6	...	1,915	24·9	...	9·7
1856-1860	73,458	524	7·1	2,397	32·6	...	1,772	24·1	...	8·5

† Corrected for transferred births for 1911 and subsequent years.

‡ Corrected for transferred deaths for 1904 and subsequent years.

Mortality at Pre-School Age-Period (1 to 5 years), excluding Infant Period (Tables XIX., XXIV., and XXV.).—The number of deaths at this age-period was 142, equivalent to a death-rate of 13·3 per 1,000 of the population at this age, as compared with an average rate of 15·1 in the preceding ten years.

Mortality at School Age-Period (5 to 15 years) (Tables XXIV. and XXV.).—The deaths at this age-period amounted to 53, or 1·7 per 1,000 of population at this age, as compared with an average rate of 2·2 for the preceding decennium.

Mortality at Adolescent Age-Period (15 to 25 years) (Tables XXIV. and XXV.).—The deaths at this age-period were 77, or 2·4 per 1,000 of the population, as compared with an average rate of 3·2 in the preceding ten years. The tuberculosis death-rate (0·5) at this age-period was half the average rate (1·0) in the preceding decennium.

Mortality at Early-Mature Age-Period (25 to 45 years) (Tables XXIV. and XXV.).—The number of deaths at this age-period was 225, giving a rate of 5·2 per 1,000 of the population. The rate for the preceding decennium was 5·7.

Mortality at Late-Mature Age-Period (45 to 65 years) (Tables XXIV. and XXV.).—The deaths amounted to 482, with a rate of 16·4 per 1,000 of the population at this period, as compared with an average rate of 16·3 for the preceding decennium.

Mortality at Post-Mature Age-Period (65 years and upwards) (Tables XXIV. and XXV.).—The deaths amounted to 945, with an equivalent rate of 95·9 per 1,000 of the population, as compared with an average rate of 86·7 for the 1918-1927 decennium.

Mortality at all Ages (Tables XXIII., XXIV., and XXV.).—The death-rate from all causes has already been referred to.

The percentage fall in the death-rate from the decade of 1861-1870 up to the end of 1928 is for each age-period as follows, namely:—54 for the pre-school (including the infant) period; 78 for the school period; 75 for the adolescent period; 60 for the early-mature period; and 30 for the late-mature period. In the post-mature period, there was a percentage rise of 1·1.

During 1928, the diseases responsible for the largest number of deaths were as follows:—Diseases of the circulatory system, 402 deaths; diseases of the nervous system, 339 deaths (including 266 due to cerebral hæmorrhage); respiratory diseases, 274; malignant diseases, 248; tuberculous diseases, 168, of which 113 were respiratory; and zymotic diseases, 165.

VARIATIONS IN MORTALITY FROM SELECTED CAUSES SINCE 1856.

The variations in the mortality from selected causes at all ages since the year 1856—the second year of civil registration—can be conveniently followed in Table I.

Infectious Diseases.—These, including tuberculosis, are dealt with in greater detail in the part of the Report devoted especially to infectious diseases.

TABLE XXIV.—ABERDEEN.—MORTALITY FROM ALL CAUSES AT VARIOUS AGE-PERIODS * (per 1,000 of population at each age).

Year.	INFANTILE MORTALITY.	AGE PERIOD.						All Ages.
	Deaths of Infants under 1 year per 1,000 Births.	0—5 years. (Pre-School Period.)	5—15 years. (School Period.)	15—25 years. (Adolescent Period.)	25—45 years. (Early Mature Period.)	45—65 years. (Late Mature Period.)	65 years and upwards. (Post-mature Period.)	
1928 . .	**94**	**31·6**	**1·7**	**2·4**	**5·2**	**16·4**	**95·9**	**14·0**
1927 . .	105	30·4	1·9	1·7	4·4	17·1	96·1	13·7
1926 . .	96	30·3	2·1	2·4	4·6	15·9	89·9	13·3
1925 . .	109	35·9	1·7	2·3	5·8	14·5	88·9	13·7
1924 . .	122	44·2	1·5	2·6	4·8	15·4	91·7	14·6
1923 . .	104	38·1	1·3	2·8	4·9	15·6	82·7	13·5
Mean of 1923-1927 (Five years).	**107**	**35·8**	**1·7**	**2·4**	**4·9**	**15·7**	**89·9**	**13·8**
1922 . .	133	56·1	2·0	2·8	5·9	17·4	87·4	16·2
1921 . .	108	37·5	2·4	3·6	5·9	16·9	82·2	14·3
1920 . .	121	49·6	2·2	3·8	6·7	16·1	73·6	14·9
1919 . .	118	36·6	3·2	4·4	6·7	17·2	91·7	15·3
1918 . .	143	41·9	3·6	5·4	7·8	17·3	83·8	15·9
Mean of 1918-1922 (Five years).	125	44·3	2·7	4·0	6·6	17·0	83·7	15·3
1916-1920 .	127	41·0	2·9	4·0	6·8	17·4	82·8	15·1
1911-1915 .	143	49·7	4·0	4·1	6·7	20·0	86·5	16·8
1906-1910 .	128	42·5	2·9	3·5	7·0	19·5	84·2	15·4
1901-1905 .	143	52·2	3·1	4·6	7·4	21·3	83·3	17·1
1896-1900 .	144	54·2	3·4	5·0	9·2	22·2	81·6	18·1
1891-1895 .	147	57·5	4·5	5·8	9·3	22·7	86·5	19·3
1886-1890 .	140	52·9	4·8	7·0	10·5	22·9	88·1	20·2
1881-1885 .	126	50·9	5·4	6·4	10·1	23·8	86·3	19·8
1876-1880 .	129	53·1	6·2	7·7	11·3	22·1	86·6	20·9
1871-1875 .	133	57·5	7·7	8·2	12·0	22·6	91·5	22·4
1866-1870 .	133	68·0	7·2	8·9	12·4	22·2	91·2	23·5
1861-1865 .	130	68·9	8·1	10·5	13·4	24·7	98·7	24·9
1856-1860 .	126	67·8	9·3	9·8	12·6	21·8	97·5	24·1

* Corrected for transferred deaths in 1904 and subsequent years.

Table XXV.—Aberdeen.—Mortality at Various Age-Periods from Various Causes.

(Corrected for transferred deaths.)

Age.	All Causes.	Zymotic Diseases.			Tuberculous Diseases.		Respiratory Diseases.			Diseases of Circulatory System	Diseases of Genito-Urinary System.	Nervous Diseases.			Dis. of Digest. Syst. incl. Diarrhœa.	Malignant Diseases.	Developmental Diseases (ex. old age)	Accident and Violence.	Debility, Atrophy, Inanition.		Miscellaneous.
		Ordinary.	Venereal.	Septic.	Respiratory.	Other Tuberculous	Pneumonia.	Bronchitis.	Other Respiratory.			Cereb. Haemo., Thrombosis, Embolism, & Hemip.	Convulsions	Other Nervous.					Under age of 1 year.	Above age of 65 years.	
A.—Number of Deaths—Year 1928.																					
Under 1 year,	313	40	1	11	0	7	44	12	0	0	0	0	13	7	30	0	76	6	54	...	12
1—5 years,	142	62	0	1	1	22	22	5	5	0	0	0	0	3	10	0	3	6	...	...	2
5—15 ,,	53	12	0	1	1	7	1	0	0	3	3	0	0	5	6	0	0	11	...	...	3
15—25 ,,	77	1	1	0	16	5	4	0	4	5	3	1	0	6	12	3	0	9	...	...	7
25—45 ,,	225	1	0	3	48	7	18	5	2	28	12	7	0	13	15	18	0	23	...	...	25
45—65 ,,	482	9	5	2	36	7	20	17	9	91	25	67	0	15	33	99	0	23	...	...	24
65+ ,,	945	7	1	6	11	0	38	55	13	275	46	191	0	11	22	128	0	27	...	94	20
All Ages, .	2237	132	8	24	113	55	147	94	33	402	89	266	13	60	128	248	79	105	54	94	93
B.—Death-Rate per 100,000 of Population at Each Age—Year 1928.																					
Under 1 year,	8327	965	26	293	0	186	1171	319	0	0	0	0	346	186	798	0	2022	159	1436	...	320
1—5 years,	1333	582	0	9	9	207	206	47	47	0	0	0	0	28	94	0	28	56	...	...	19
5—15 ,,	171	39	0	3	3	22	3	0	0	10	10	0	0	16	19	0	0	35	...	...	10
15—25 ,,	241	3	3	0	50	16	13	0	13	16	9	3	0	19	38	9	0	28	...	...	22
25—45 ,,	521	2	0	7	112	16	42	11	5	65	28	16	0	30	35	42	0	53	...	...	58
45—65 ,,	1636	30	17	7	122	24	68	58	30	309	85	227	0	51	112	336	0	78	...	...	81
65+ ,,	9591	71	10	61	112	0	386	558	132	2791	467	1938	0	112	223	1299	0	274	...	954	203
All Ages, .	1399	83	5	15	71	34	92	59	21	251	56	166	8	37	80	155	50	66	...	...	58
C.—Death-Rate per 100,000 of Population at Each Age—Average for Ten Years—1918-1927.																					
Under 1 year,	11248	954	267	56	40	201	1368	807	67	19	11	19	607	158	1045	3	3050	134	2108	...	336
1—5 years,	1507	572	3	8	27	197	277	50	10	4	15	1	50	41	82	6	15	108	...	...	42
5—15 ,,	219	53	0	2	13	37	20	3	3	13	4	0·3	0·3	12	19	1	2	20	...	...	16
15—25 ,,	317	36	0	2	98	21	20	2	4	24	7	2	0	18	17	5	0·3	27	...	...	33
25—45 ,,	573	62	3	5	145	11	41	6	5	54	29	11	0	32	30	43	0·4	35	...	...	60
45—65 ,,	1633	66	2	8	112	10	87	66	26	281	116	187	0	72	96	322	0	66	...	...	114
65+ ,,	8670	273	6	27	63	17	320	771	156	1967	438	1420	0	130	295	1029	0	190	...	1275	294
All Ages, .	1456	124	8	7	88	36	106	84	20	194	59	125	18	42	81	135	73	53	...	...	86

Cancer and other Malignant Diseases.—The cancer death-rate was 155 per 100,000 of the population in 1928, as compared with a rate of 145 in 1927. During the 1923-1927 quinquennium, the average rate was 141.

Pneumonia.—The death-rate from pneumonia was 91 per 100,000 of the population, as against an average of 85 during the 1923-1927 quinquennium.

Bronchitis, which has been an almost steadily declining cause of death since near the commencement of civil registration, gave a death-rate of 58 per 100,000 of the population, as compared with an average of 68 for the preceding quinquennium.

Diseases of the Digestive System.—In 1928, the death-rate was 80 per 100,000, being the same rate as in the 1923-1927 quinquennium.

Diseases of the Circulatory System.—The death-rate from these diseases was 251 per 100,000, as compared with an average of 208 for the preceding quinquennium.

COMPARISON BETWEEN ABERDEEN AND OTHER TOWNS.

Table XXVI. is submitted, which gives a comparison between Aberdeen and other large towns in Scotland in regard to some of the more important features of their vital statistics.

The rates for births and deaths are corrected for transfers, that is, for births or deaths transferred from the records in the place of their occurrence to the records of the place of home residence.

A further correction is applied to the death-rate from all causes. This correction is necessary to any comparison between the towns, owing to the difference in sex and age distribution.

Marriages.—Table XXVI. shows that, among the principal towns, Aberdeen occupied the highest place, with a rate of 96 per 10,000 of population. Edinburgh came second, with a rate of 88, Glasgow, Dundee, Paisley, and Greenock had marriage-rates of 87, 78, 68, and 59 respectively.

As has been pointed out in previous Reports, the marriage-rate for the larger towns is inflated beyond its proper dimensions by the inclusion of a considerable number of marriages of people whose residence is beyond the City.

Births.—In respect of births, Aberdeen came third in the list, with a birth-rate of 208. Greenock had the highest birth-rate, with 241; and Glasgow came second, with 223.

Illegitimate Births.—The percentage of illegitimate births in the total births was distinctly higher in Aberdeen than in any of the other principal towns, being 8·8, as against 7·8 in Dundee, 6·7 in Glasgow, and 6·4 in Edinburgh. Stated as births per 1,000 unmarried and widowed women of child-bearing ages (15-45 years), Aberdeen, with a rate of 12·1, was again highest; Glasgow was second, with 10·6; Paisley was lowest, with 5·6.

TABLE XXVI.—BIRTH, DEATH, AND MARRIAGE RATES DURING THE YEAR 1928.

Six Principal Towns in Scotland.

(Corrected for transfers of births and deaths.)

	Glasgow.	Edinburgh.	Dundee.	Aberdeen.	Paisley.	Greenock.
ESTIMATED POPULATION, (*in thousands*).	1060	428	172	159	88	79
MARRIAGE-RATE, (*per* 10,000 *of population*).	87	88	78	96	68	59
BIRTH-RATE—						
A—Total Births, (*per* 10,000 *of population*).	223	173	203	208	202	241
B—Legitimate Births, (*per* 1,000 *Married Women aged* 15-45 *years*).	184	157	179	174	179	205
C—Illegitimate Births—						
(*a*) *Per* 100 *total Births*,	6·7	6·4	7·8	8·8	4·3	4·7
(*b*) *Per* 1,000 *Unmarried Women and Widows aged* 15–45 *years*,	10·6	6·8	9·9	12·1	5·6	9·8
DEATH-RATE—						
A—All Ages (*per* 10,000 *of population*).						
(*a*) All Causes,	148	137	151	141	131	157
Corrected for Age and Sex Distribution,	167	139	151	141	144	171
(*b*) Principal Epidemic Diseases,	11·4	5·6	6·5	8·4	9·4	20·0
(*c*) Tuberculosis—						
(1) Respiratory,	8·9	8·1	8·0	7·0	9·5	8·0
(2) Other,	3·4	2·4	2·5	3·4	3·8	3·4
(*d*) Bronchitis,	9·5	7·5	8·9	5·8	6·8	7·8
(*e*) Pneumonia,	18·9	12·2	16·2	9·7	14·6	16·9
(*f*) Malignant Diseases,	14·2	16·0	19·9	15·5	12·4	14·0
(*g*) Diseases of Circulatory System,	17·8	23·5	23·5	25·2	18·0	17·2
(*h*) Nephritis and Bright's Disease,	4·1	4·6	3·0	3·8	3·9	3·7
(*i*) Diarrhœa and Enteritis (under 2 years),	2·5	1·0	1·7	1·7	1·9	2·5
(*j*) Violence (excl. Suicide),	5·3	4·9	5·3	5·7	3·3	4·8
B—Infants under One Year, (*per* 1,000 *births*).	107	75	102	94	105	120
EXCESS of BIRTH-RATE over DEATH-RATE,	75	36	52	67	71	84

Deaths.—As regards the crude death-rate from all causes and at all ages, Paisley had the lowest death-rate, with 131 per 10,000 of population, while Greenock had the highest, with 157. Aberdeen had the third lowest death-rate, with 141. When this crude death-rate is corrected for age and sex distribution, Edinburgh had the lowest death-rate, 139; Aberdeen coming next with 141. Greenock had the highest rate of 171.

In Table XXVI. the crude rates from the principal causes of death for the six towns are given.

In regard to *Infantile Mortality* (deaths of infants under one year per 1,000 births), Aberdeen was fifth in the list, with a rate of 94, Edinburgh being lowest, with a rate of 75. Greenock, with 120, had the highest rate.

Excess of Birth-Rate over Death-Rate.—As in the preceding year, the excess was highest in Greenock, with 84 per 10,000 of population. Edinburgh was lowest, with 36. In Aberdeen, it was 67.

No attempt has been made to elaborate the statistics set out in this section of the Report. Without corrections for age and sex and standardisation, a comparison of disease-rates and death-rates in the various towns is futile. Even when so standardised, a false value is attached to such a comparison, since it ignores natural variation in the local prevalence of disease, and tends to suggest that disease prevalence is dependent on immediate environmental conditions to an extent that is not warranted by existing knowledge.

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30th April, 1929.

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